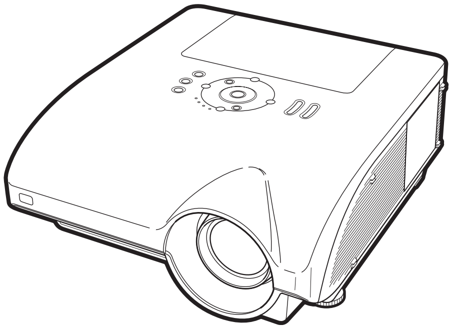
SHARP

# SERVICE MANUAL
# SERVICE-ANLEITUNG

S35G5XG-PH50X



## MULTIMEDIA-PROJECTOR
## MULTIMEDIA-PROJEKTOR

MODELS
MODELLE

# XG-PH50X
# XG-PH50X-NL

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

Im Interesse der Benutzersicherheit (erforderliche Sicherheitsregeln in einigen Ländern) muß das Gerät in seinen Originalzustand gebracht werden. Außerdem dürfen für die spezifizierten Bauteile nur identische Teile verwendet werden.

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

## CONTENTS

Page
- SPECIFICATIONS .......................................... 3
- IMPORTANT SERVICE SAFETY NOTES (for USA) .......................................... 4
- NOTE TO SERVICE PERSONNEL .................. 6
- OPERATION MANUAL .................................. 10
- DIMENSIONS ................................................ 17
- REMOVING OF MAJOR PARTS .................... 18
- RESETTING THE TOTAL LAMP TIMER ........ 31
- ELECTRICAL ADJUSTMENT ........................ 33
- TROUBLESHOOTING TABLE ........................ 42
- CHASSIS LAYOUT ...................................... 134

Page
- BLOCK DIAGRAM ....................................... 136
- OVERALL WIRING DIAGRAM ..................... 138
- WAVEFORMS ............................................. 140
- PRINTED WIRING BOARD ASSEMBLIES .. 141
- PARTS LIST
  - ■ ELECTRICAL PARTS .............................. 156
  - ■ CABINET AND MECHANICAL PARTS .... 180
  - ■ ACCESSORIES PARTS .......................... 185
  - ■ PACKING PARTS ................................... 185
- PACKING OF THE SET ............................... 186
- SCHEMATIC DIAGRAM ........................ D1-D71

## INHALT

Seite
- SPEZIFIKATIONEN ...................................... 70
- HINWEISE FÜR DAS WARTUNGSPERSONAL ............................... 71
- BEDIENUNGSANLEITUNG ........................... 73
- ABMESSUNGEN .......................................... 80
- ENTFERNEN DER HAUPTTEILE .................. 81
- RÜCKSTELLEN DES LAMPENBETRIEBSZEIT-TIMERS ................. 94
- ELEKTRISCHE EINSTELLUNG ..................... 96
- FEHLERSUCHTABELLE ............................. 105
- CHASSIS-ANORDNUNG ............................ 134
- BLOCKSCHALTBILD ................................... 136

Seite
- GESAMTSCHALTPLAN ............................... 138
- WELLENFORMEN ....................................... 140
- LEITERPLATTENEINHEITEN ..................... 141
- ERSATZTEILLISTE
  - ■ ELEKTRISCHE BAUTEILE ...................... 156
  - ■ GEHÄUSE UND MECHANISCHE BAUTEILE ................................................ 180
  - ■ ZUBEHÖRTEILE ...................................... 185
  - ■ VERPACKUNGSTEILE ............................ 185
- VERPACKEN DES GERÄTS ........................ 186
- SCHEMATISCHER SCHALTPLAN ........ D1-D71

# SPECIFICATIONS

| | |
|---|---|
| Product type | Multimedia Projector |
| Model | XG-PH50X (standard zoom lens attached)/XG-PH50X-NL (no lens attached) |
| Video system | NTSC3.58/NTSC4.43/PAL/PAL-M/PAL-N/PAL-60/SECAM/<br>DTV480I/DTV480P/DTV540P/DTV576I/DTV576P/DTV720P/DTV1035I/DTV1080I |
| Display method | Single Chip Digital Micromirror Device™ (DMD™) by Texas Instruments |
| DMD panel | Panel size: 0.7"<br>No. of dots: 786,432 dots (1,024 [H] × 768 [V]) |
| Lens | 1.2 × electric zoom/focus lens, F1.8–F2.0, f = 25.6–31.3 mm (standard equipment with XG-PH50X) |
| Projection lamp | 250 W × 2 |
| Component input (INPUT 1)/ output (OUTPUT) signal | 15-pin mini D-sub connector<br>Y: 1.0 Vp-p, sync negative, 75 Ω terminated<br>PB: 0.7 Vp-p, 75 Ω terminated<br>PR: 0.7 Vp-p, 75 Ω terminated |
| Horizontal resolution | 750 TV lines (DTV720P) |
| Component input (INPUT 2) signal | BNC connector<br>Y: 1.0 Vp-p, sync negative, 75 Ω terminated<br>PB: 0.7 Vp-p, 75 Ω terminated<br>PR: 0.7 Vp-p, 75 Ω terminated |
| RGB input (INPUT 1/2)/ output (OUTPUT) signal | 15-pin mini D-sub connector, 5 BNC connector<br>RGB separate/sync on green type analog input: 0–0.7 Vp-p, positive, 75 Ω terminated<br>HORIZONTAL SYNC. SIGNAL: TTL level (positive/negative)<br>VERTICAL SYNC. SIGNAL: Same as above |
| RGB digital input signal (INPUT 3) | DVI connector (24-pin), RGB (digital), 250 –1,000 mV, 50 Ω (Compatible with HDCP) |
| Video input signal (INPUT 4) | RCA connector: VIDEO, composite video, 1.0 Vp-p, sync negative, 75 Ω terminated |
| S-video input signal (INPUT 5) | 4-pin mini DIN connector<br>Y (luminance signal): 1.0 Vp-p, sync negative, 75 Ω terminated<br>C (chrominance signal): Burst 0.286 Vp-p, 75 Ω terminated |
| Audio input signal | ø3.5 mm stereo minijack: AUDIO, 0.5 Vrms, more than 22 kΩ |
| Audio output signal (AUDIO OUTPUT 1–5) | ø3.5 mm minijack<br>0.5 Vrms, less than 2.2 kΩ |
| RS-232C terminal | 9-pin mini DIN connector |
| LAN terminal | 8-pin RJ-45 modular connector |
| Pixel clock | 12–230 MHz |
| Vertical frequency | 43–200 Hz |
| Horizontal frequency | 15–126 kHz |
| Audio output | 3.0 W (stereo) |
| Speaker system | 4.5 cm round × 2 |
| Rated voltage | AC 100–240 V |
| Input current | 6.3 A (AC 100 V)–2.6 A (AC 240 V) |
| Rated frequency | 50/60 Hz |
| Power consumption | 630 W (when "Eco Mode" is "OFF")/505 W (when "Eco Mode" is "ON") with AC 100 V<br>600 W (when "Eco Mode" is "OFF")/485 W (when "Eco Mode" is "ON") with AC 240 V |
| Power consumption (standby) | 0.75 W (AC 100 V) – 1.25 W (AC 240 V) (When "Monitor Out" and "LAN/RS232C" are set to "Disable".) |
| Heat dissipation | 2,370 BTU/hour (when "Eco Mode" is "OFF")/1,900 BTU/hour (when "Eco Mode" is "ON") with AC 100 V<br>2,260 BTU/hour (when "Eco Mode" is "OFF")/1,825 BTU/hour (when "Eco Mode" is "ON") with AC 240 V |
| Operating temperature | 41°F to 104°F (+5°C to +40°C) |
| Storage temperature | –4°F to 140°F (–20°C to +60°C) |
| Cabinet | Plastic |
| I/R carrier frequency | 38 kHz |
| Dimensions (approx.) | 16 $^{5}/_{32}$" × 7 $^{3}/_{32}$" × 18 $^{35}/_{64}$" (410 (W) × 180 (H) × 471 (D) mm) (main body only)<br>16 $^{5}/_{32}$" × 7 $^{37}/_{64}$" × 18 $^{35}/_{64}$" (410 (W) × 192.1 (H) × 471 (D) mm) (including adjustment foot and projecting parts) |
| Weight (approx.) | XG-PH50X: 32.7 lbs. (14.8 kg), XG-PH50X-NL: 30.0 lbs. (13.6 kg) |
| Replacement parts | Lamp unit (AN-PH50LP1/AN-PH50LP2), Remote control (9NK5041808700), Power cord for U.S., Canada, etc. (9NK3090152800), Power cord for Europe, except U.K. (9NK3090152700), Power cord for U.K., Hong Kong and Singapore (9NK3090152900), Power cord for Australia, New Zealand and Oceania (9NK3090152600), RGB cable (9NK3080431000), Remote mouse receiver (9NK3790197000), Cap for the standard zoom lens (9NK3797200400), Projector manual and technical reference CD-ROM (9NK3532094500), Operation manual (9NK5010011800) |

***As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.***

# IMPORTANT SERVICE SAFETY NOTES (for USA)

- **Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and servicing guidelines as follows:**

## WARNING

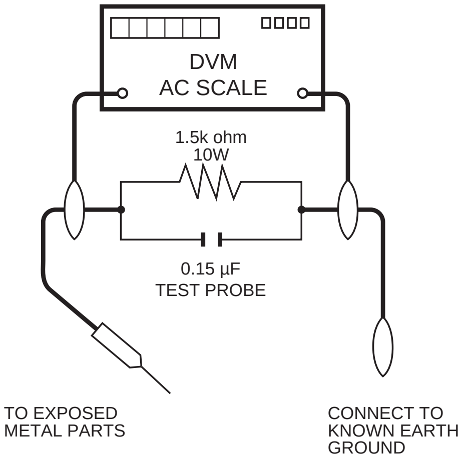
1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.

### BEFORE RETURNING THE PROJECTOR: (Fire & Shock Hazard)

**Before returning the projector to the user, perform the following safety checks:**

1. Inspect lead wires are not pinched between the chassis and other metal parts of the projector.
2. Inspect all protective devices such as non-metallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for current leakage in the following manner:

- Plug the AC cord directly into a 120-volt AC outlet, (Do not use an isolation transformer for this test).
- Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15µF capacitor in parallel between all exposed metal cabinet parts and earth ground.
- Use an AC voltmeter with sensitivity of 5000 ohm per volt., or higher, sensitivity to measure the AC voltage drop across the resistor (See Diagram).
- All checks must be repeated with the AC plug connection reversed. (If necessary, a non-polarized adapter plug must be used only for the purpose of completing these checks.)
  Any reading of 0.3 volts RMS (this corresponds to 0.2 milliamp. AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the unit to the owner.



## SAFETY NOTICE

Many electrical and mechanical parts in DMD™ Projector have special safety-related characteristics.
These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.
Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" and shaded areas in the Replacement Parts Lists and Schematic Diagrams. For continued protection, replacement parts must be identical to those used in the original circuit. The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

## AVIS POUR LA SECURITE

De nombreuses pièces, électriques et mécaniques, dans les projecteur à DMD™ présentent des caractéristiques spéciales relatives à la sécurité, qui ne sont souvent pas évidentes à vue.
Le degré de protection ne peut pas être nécessairement augmentée en utilisant des pièces de remplacement étalonnées pour haute tension, puissance, etc.
Les pièces de remplacement qui présentent ces caractéristiques sont identifiées dans ce manuel; les pièces électriques qui présentent ces particularités sont identifiées par la marque "⚠" et hachurées dans la liste des pièces de remplacement et les diagrammes schématiques. Pour assurer la protection, ces pièces doivent être identiques à celles utilisées dans le circuit d'origine. L'utilisation de pièces qui n'ont pas les mêmes caractéristiques que les pièces recommandées par l'usine, indiquées dans ce manuel, peut provoquer des électrocutions, incendies ou autres accidents.

**WARNING: The bimetallic component has the primary conductive side exposed. Be very careful in handling this component when the power is on.**

**AVERTISSEMENT: La composante bimétallique dispose du conducteur primaire dénudé. Faire attention lors de la manipulation de cette composante sous tension.**

# PRECAUTIONS A PRENDRE LORS DE LA REPARATION

**■ Ne peut effectuer la réparation qu' un technicien spécialisé qui s'est parfaitement accoutumé à toute vérification de sécurité et aux conseils suivants.**

## AVERTISSEMENT

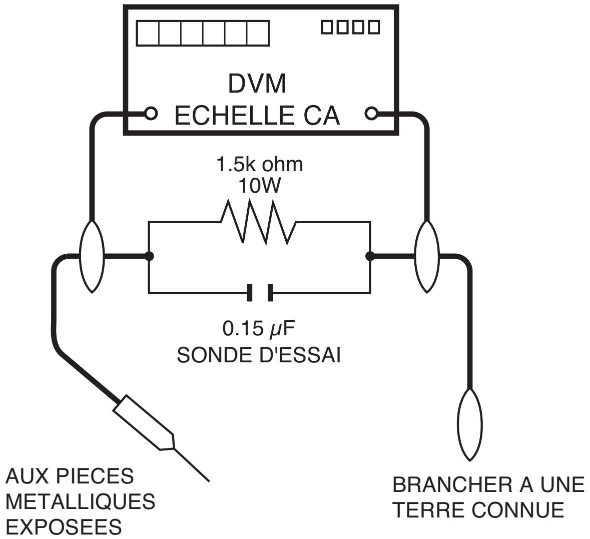
1. N'entreprendre aucune modification de tout circuit. C'est dangereux.
2. Débrancher le récepteur avant toute réparation.

## VERIFICATIONS CONTRE L'INCEN-DIE ET LE CMC ELECTRIQUE

**Avant de rendre le récepteur à l'utilisateur, effectuer les vérifications suivantes.**

1. Inspecter tous les faisceaux de câbles pour s'assurer que les fils ne soient pas pincés ou qu'un outil ne soit pas placé entre le châssis et les autres pièces métalliques du récepteur.
2. Inspecter tous les dispositifs de protection comme les boutons de commande non-métalliques, les isolants, le dos du coffret, les couvercles ou blindages de réglage et de compartiment, les réseaux de résistance-capacité, les isolateurs mécaniques, etc.
3. S'assurer qu'il n'y ait pas de danger d'électrocution en vérifiant la fuite de courant, de la facon suivante:

- Brancher le cordon d'alimentation directem-ent à une prise de courant de 120V. (Ne pas utiliser de transformateur d'isolation pour cet essai).
- A l'aide de deux fils à pinces, brancher une résistance de 1.5 kΩ 10 watts en parallèle avec un condensateur de 0.15µF en série avec toutes les pièces métalliques exposées du coffret et une terre connue comme une conduite électrique ou une prise de terre branchée à la terre.
- Utiliser un voltmètre CA d'une sensibilité d'au moins 5000Ω/V pour mesurer la chute de tension en travers de la résistance.
- Toucher avec la sonde d'essai les pièces métalliques exposées qui présentent une voie de retour au châssis (antenne, coffret métallique, tête des vis, arbres de commande et des boutons, écusson, etc.) et mesurer la chute de tension CA en-travers de la résistance. Toutes les vérifications doivent être refaites après avoir inversé la fiche du cordon d'alimentation. (Si nécessaire, une prise d'adpatation non polarisée peut être utilisée dans le but de terminer ces vérifications.)
  Tous les courants mesurés ne doivent pas dépasser 0.5 mA.
  Dans le cas contraire, il y a une possibilité de choc électrique qui doit être supprimée avant de rendre le récepteur au client.



## AVIS POUR LA SECURITE

De nombreuses pièces, électriques et mécaniques, dans les téléviseur ACL présentent des caractéristiques spéciales relatives à la sécurité, qui ne sont souvent pas évidentes à vue. Le degré de protection ne peut pas être nécessairement augmentée en utilisant des pièces de remplacement étalonnées pour haute tension, puissance, etc.
Les pièces de remplacement qui présentent ces caractéristiques sont identifiées dans ce manuel; les pièces électriques qui présentent ces particularités sont identifiées par la marque " ⚠ " et hachurées dans la liste des pièces de remplacement et les diagrammes schématiques.
Pour assurer la protection, ces pièces doivent être identiques à celles utilisées dans le circuit d'origine. L'utilisation de pièces qui n'ont pas les mêmes caractéristiques que les pièces recommandées par l'usine, indiquées dans ce manuel, peut provoquer des électrocutions, incendies, radiations X ou autres accidents.

# NOTE TO SERVICE PERSONNEL

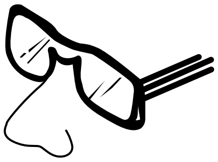
## UV-RADIATION PRECAUTION

**The light source, UHP lamp, in the LCD projector emits small amounts of UV-Radiation.**

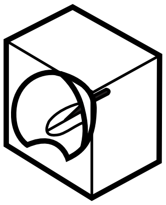
### AVOID DIRECT EYE AND SKIN EXPOSURE.

**To ensure safety please adhere to the following:**

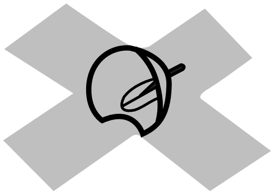
1. Be sure to wear sun-glasses when servicing the projector with the lamp turned “on” and the top enclosure removed.



2. Do not operate the lamp outside of the lamp housing.



3. Do not operate for more than 2 hours with the enclosure removed.



## UV-Radiation and Medium Pressure Lamp Precautions

1. Be sure to disconnect the AC plug when replacing the lamp.
2. Allow one hour for the unit to cool down before servicing.
3. Replace only with same type lamp. Type AN-PH50LP1/AN-PH50LP2 rated 250W.
4. The lamp emits small amounts of UV-Radiation, avoid direct-eye contact.
5. The medium pressure lamp involves a risk of explosion. Be sure to follow installation instructions described below and handle the lamp with care.

# NOTE POUR LE PERSONNEL D’ENTRETIEN

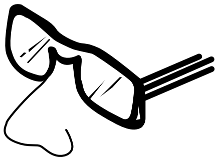
## PRECAUTION POUR LES RADIATIONS UV

**La source de lumière, la lampe UHP, dans le projecteur LCD émet de petites quantités de radiation UV.**

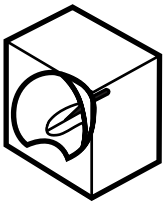
### EVITEZ TOUTE EXPOSITION DIRECTE DES YEUX ET DE LA PEAU.

**Pour votre sécurité, nous vous prions de respecter les points suivants:**

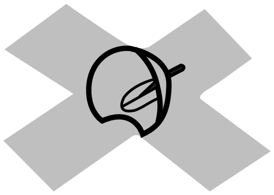
1. Toujours porter des lunettes de soleil lors d’un entretien du projecteur avec la lampe allumée et le haut du coffret retiré.



2. Ne pas faire fonctionner la lampe à l’extérieur du boîtier de lampe.



3. Ne pas faire fonctionner plus de 2 heures avec le coffret retiré.



## Précautions pour les radiations UV et la lampe moyenne pression

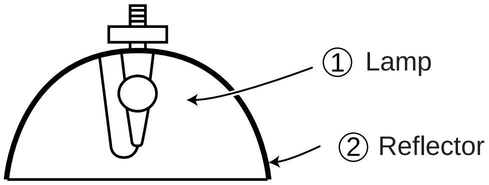
1. Toujours débrancher la fiche AC lors du remplacement de la lampe.
2. Laisser l’unité refroidir pendant une heure avant de procéder à l’entretien.
3. Ne remplacer qu’avec une lampe du même type. Type AN-PH50LP1/AN-PH50LP2, caractéristique 250W.
4. La lampe émet de petites quantités de radiation UV- éviter tout contact direct avec les yeux.
5. La lampe moyenne pression implique un risque d’explosion. Toujours suivre les instructions d’installation décrites ci-dessous et manipuler la lampe avec soin.

## UV-RADIATION PRECAUTION (Continued)

### Lamp Replacement

**Note:**

Since the lamp reaches a very high temperature during units operation replacement of the lamp should be done at least one hour after the power has been turned off. (to allow the lamp to cool off.)
Installing the new lamp, make sure not to touch the lamp (bulb) replace the lamp by holding its reflector ②.
[Use original replacement only.]



**DANGER !** — Never turn the power on without the lamp to avoid electric-shock or damage of the devices since the stabilizer generates high voltages at its start.

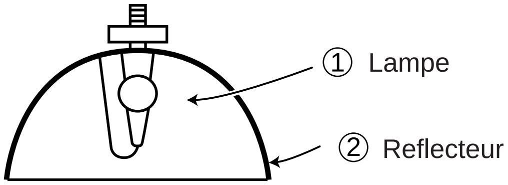
Since small amounts of UV-radiation are emitted from an opening between the exhaust fans, it is recommended to place the cap of the optional lens on the opening during servicing to avoid eye and skin exposure.

## PRECAUTION POUR LES RADIATIONS UV (Suite)

### Remplacement de la lampe

**Remarque:**

Comme la lampe devient très chaude pendant le fonctionnement de l’unité, son remplacement ne doit être effectué au moins une heure après avoir coupé l’alimentation (pour permettre à la lampe de refroidir).
En installant la nouvelle lampe, s’assurer de ne pas toucher la lampe (ampoule). Remplacer la lampe en tenant son réflecteur ②.
[N’utiliser qu’un remplacement d’origine.]



**DANGER !** — Ne jamais mettre sous tension sans la lampe pour éviter un choc électrique ou des dommages des appareils car le stabilisateur génère de hautes tensions à sa mise en route.

Comme de petites quantités de radiation UV sont émises par une ouverture entre les ventilateurs aspirants, il est recommandé de placer le capuchon de l’optique optionnelle sur l’ouverture pendant l’entretien pour éviter une exposition des yeux et la peau.

**WARNING:** **High brightness light source, do not stare into the beam of light, or view directly. Be especially careful that children do not stare directly in to the beam of light.**

**WARNING:** **TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO MOISTURE OR WET LOCATIONS.**

## CAUTION

RISK OF ELECTRIC SHOCK.
DO NOT REMOVE SCREWS
EXCEPT SPECIFIED USER
SERVICE SCREW.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE CABINET. NO USER-SERVICEABLE PARTS EXCEPT LAMP UNIT. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lighting flash with arrowhead within a triangle is intended to tell the user that parts inside the product are risk of electric shock to persons.

The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the manual with the projector.

## CAUTION
### (FILTER Unit)

8A 250V

For continued protection against a risk of fire, replace only with same type 8A, AC250V fuse. (F301)

**AVERTISSEMENT:** **Source lumineuse de grande intensité. Ne pas fixer le faisceau lumineux ou le regarder directement. Veiller particulièrement à éviter que les enfants ne fixent directement le faisceau lumineux.**

**AVERTISSEMENT:** **AFIN D’EVITER TOUT RISQUE D’INCENDIE OU D’ELECTROCUTION, NE PAS PLACER CET APPAREIL DANS UN ENDROIT HUMIDE OU MOUILLE.**

## ATTENTION

RISQUE
D’ÉLECTROCUTION. NE
PASR ETIRER LES VIS Á
L’EXCEPTION DE LA VIS DE
REPARATION UTILISATEUR
SPECIFIEES

ATTENTION: POUR EVITER TOUT RISQUE D’ELECTROCUTION, NE PAS RETIRER LE CAPOT. AUCUNE DES PIECES INTERIEURES N’EST REPARABLE PAR L’UTILISATEUR, A L’EXCEPTION DE L’UNITE DE LAMPE. POUR TOUTE REPARATION, S’ADRESSER A UN TECHNICIEN D’ENTRETIEN QUALIFIE.

L’éclair terminé d’une flèche à l’intérieur d’un triangle indique à l’utilisateur que les pi‘eces se trouvant dans l’appareil sont susceptibles de provoquer une décharge électrique.

Le point d’exclamation à l’intérieur d’un triangle indique à l’utilisateur que les instructions de fonctionnement et d’entretien sont détaillées dans les documents fournis avec le projecteur.

## PRECAUTION
### (Unité de Filtre)

8A 250V

Pour une protection continue contre un risques d’incendie, ne remplacer qu’avec un fusible 8A,AC250V du même type. (F301)

## Precautions for using lead-free solder

1 Employing lead-free solder
"PWBs" of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWBs and service manuals. The alphabetical character following LF shows the type of lead-free solder.
Example:

**LFa**

Sn-Ag-Cu Indicates lead-free solder of tin, silver and copper.

2 Using lead-free wire solder
When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.
As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40°C, we recommend you to use a dedicated soldering bit, if you are not familiar with how to obtain lead-free wire solder or soldering bit, contact our service station or service branch in your area.

3 Soldering
As the melting point of lead-free solder (Sn-Ag-Cu) is about 220°C which is higher than the conventional lead solder by 40°C, and as it has poor solder wettability, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, since the land may be peeled off or the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.
Lead-free solder contains more tin, and the end of the soldering bit may be easily corroded. Make sure to turn on and off the power of the bit as required.
If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.
When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

Be careful when replacing parts with polarity indication on the PWB silk.

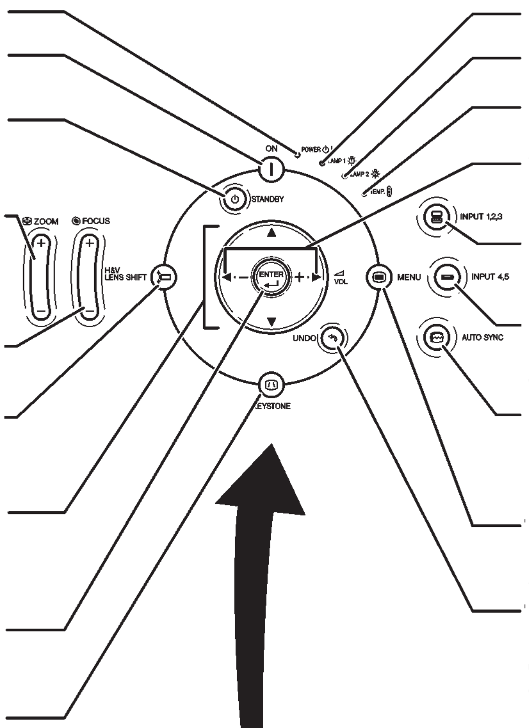
Lead-free wire solder for servicing

| Part No. | ★ | Description | Code |
|---|---|---|---|
| ZHNDAi123250E | J | $\phi$0.3mm 250g(1roll) | BL |
| ZHNDAi126500E | J | $\phi$0.6mm 500g(1roll) | BK |
| ZHNDAi12801KE | J | $\phi$1.0mm 1kg(1roll) | BM |

# Operation Manual

## Projector

### Top View



**Power indicator**

**ON button**
For turning the power on.

**STANDBY button**
For putting the projector into standby mode.

**ZOOM button**
For adjusting the projected image size.

**FOCUS button**
For adjusting the focus.

**H & V LENS SHIFT button**
For shifting the lens horizontally and vertically.

**Adjustment buttons (▲/▼/◀/▶)**
For selecting menu items and other settings.

**ENTER button**
For setting items selected or adjusted on the menu.

**KEYSTONE button**
For entering the Keystone Correction mode.

**Lamp indicator 1**

**Lamp indicator 2**

**Temperature warning indicator**

**Volume buttons**
For adjusting the speaker sound level.

**INPUT 1, 2, 3 button**
For switching input mode 1, 2 or 3.

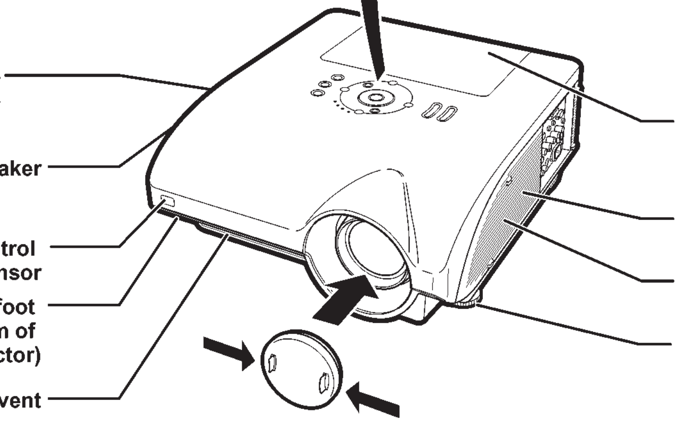
**INPUT 4, 5 button**
For switching input mode 4 or 5.

**AUTO SYNC button**
For automatically adjusting images when connected to a computer.

**MENU button**
For displaying adjustment and setting screens.

**UNDO button**
For undoing an operation or returning to the previous display.

### Front View



**Carrying handle**
For carrying the projector.

**Speaker**

**Remote control sensor**

**Adjustment foot (on the bottom of the projector)**

**Intake vent**

**Lamp unit cover**

**Intake vent**

**Speaker**

**Adjustment foot (on the bottom of the projector)**

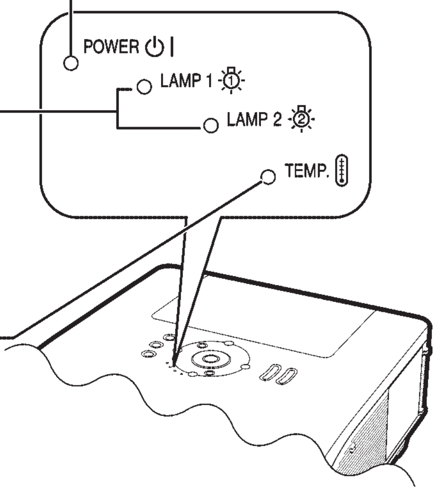
- **Attaching the lens cap**
  Push the lens cap on until it clicks into position.
- **Removing the lens cap**
  Pull the lens cap directly outward.

## About the Indicators on the Projector

**Power indicator**
Red on ··· Normal (Standby)
Green on ··· Normal (Power on)
Red blinks ··· The intake vent cover is open.

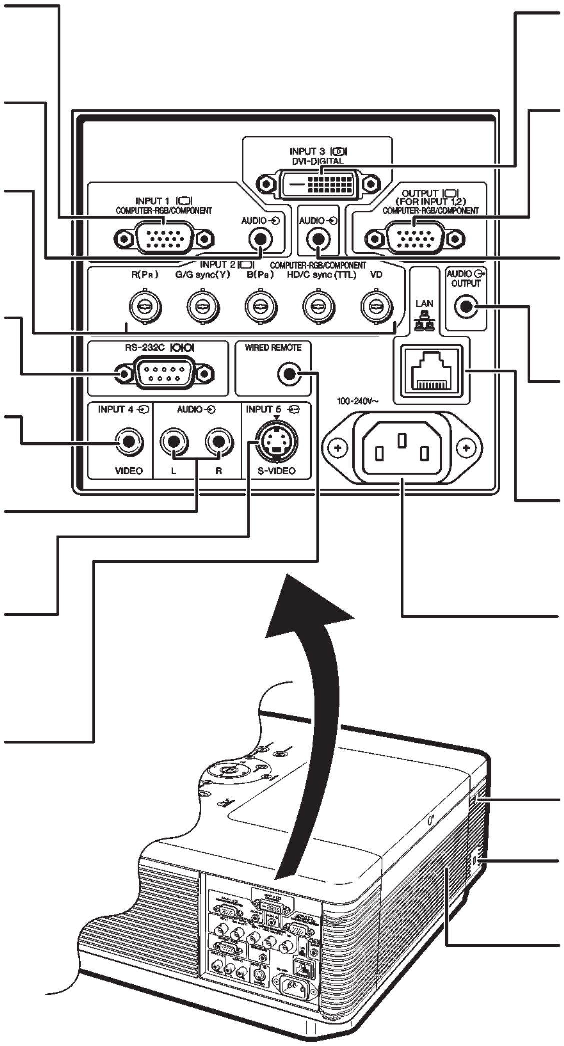
**Lamp indicators 1, 2**
Green on ··· Normal
Green blinks ··· The lamp is warming up.
Red on ··· The lamp has been shut down abnormally or needs to be changed.

**Temperature warning indicator**
Off ··· Normal
Red blinks/on ···The internal temperature is abnormally high.



# Projector (Side View)

## Terminals


INPUT 3
DVI-DIGITAL
INPUT 1
COMPUTER-RGB/COMPONENT
AUDIO
AUDIO
OUTPUT
(FOR INPUT 1,2)
COMPUTER-RGB/COMPONENT
INPUT 2
COMPUTER-RGB/COMPONENT
R(PR)
G/G sync(Y)
B(PB)
HD/C sync (TTL)
VD
LAN
AUDIO
OUTPUT
RS-232C
WIRED REMOTE
100-240V~
INPUT 4
AUDIO
INPUT 5
VIDEO
L
R
S-VIDEO

**INPUT 1 terminal**
Terminal for computer RGB and component signals.

**AUDIO input (1) terminal**
Audio input terminal for INPUT 1.

**INPUT 2 terminals**
BNC terminals for computer RGB and component signals.

**RS-232C terminal**
Terminal for controlling the projector using a computer.

**INPUT 4 terminal**
Terminal for connecting video equipment.

**AUDIO input (4, 5) terminal**
Shared audio input terminal for INPUT 4 and 5.

**INPUT 5 terminal**
Terminal for connecting video equipment with an S-video terminal.

**WIRED REMOTE terminal**
For connecting the remote control to the projector when the signals from the remote control cannot reach the remote control sensor.

**INPUT 3 terminal**
Terminal for DVI digital RGB and digital component signals.

**OUTPUT (FOR INPUT 1, 2) terminal**
Output terminal for computer RGB and component signals. Shared for INPUT 1 and 2.

**AUDIO input (2, 3) terminal**
Shared audio input terminal for INPUT 2 and 3.

**AUDIO OUTPUT terminal**
Audio output terminal shared for INPUT 1–5.

**LAN terminal**
Terminal for controlling the projector using a computer via network.

**AC socket**
Connect the supplied Power cord.

**Remote control sensor**

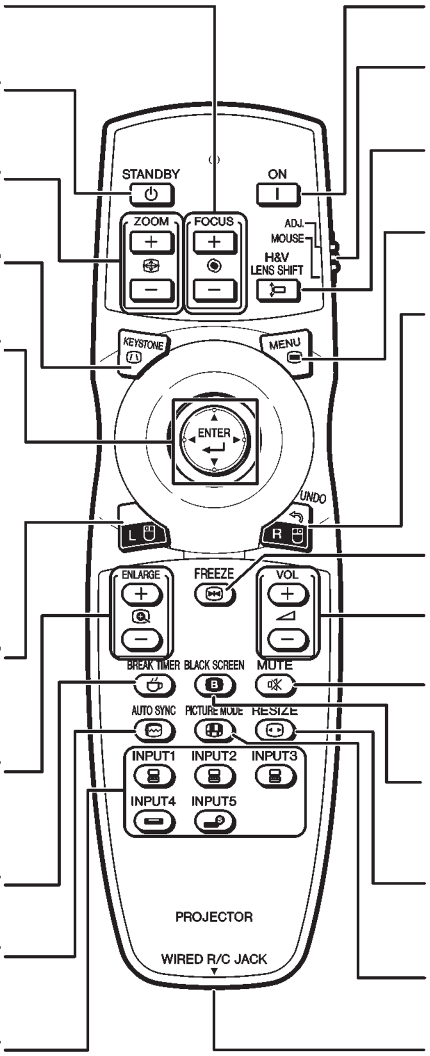
**Kensington Security Standard connector**

**Exhaust vent**
The speed and pitch of the cooling fan may change during operation in response to internal temperature changes. This is normal operation and does not indicate a malfunction.

**Using the Kensington Lock**

- This projector has a Kensington Security Standard connector for use with a Kensington MicroSaver Security System. Refer to the information that came with the system for instructions on how to use it to secure the projector.

## Remote Control



**FOCUS buttons**
For bringing the projected image into focus.

**STANDBY button**
For putting the projector into standby mode.

**ZOOM buttons**
For adjusting the projected image size.

**KEYSTONE button**
For entering the Keystone Correction mode.

**Mouse/adjustment button (▲/▼/◀/▶)**
- For moving the computer cursor while the ADJ./MOUSE switch is the MOUSE position.
- For selecting menu items while the ADJ./MOUSE switch is the ADJ. position.

**ENTER button**
For setting items selected or adjusted on the menu.

**L-click button**
For the left click while the ADJ./MOUSE switch is the MOUSE position.

**ENLARGE (enlarge/reduce) buttons**
For enlarging/reducing part of the image.

**BREAK TIMER button**
For setting the break time.

**AUTO SYNC button**
For automatically adjusting images when connected to a computer.

**INPUT 1, 2, 3, 4 and 5 buttons**
For switching to the respective input modes.

**ON button**
For turning the power on.

**ADJ./MOUSE switch**
For switching the remote control modes.

**H & V LENS SHIFT button**
For shifting the lens horizontally and vertically.

**MENU button**
For displaying adjustment and setting screens.

**R-click/UNDO button**
- For the right click while the ADJ./MOUSE switch is the MOUSE position.
- For undoing an operation or returning to the previous display while the ADJ./MOUSE switch is the ADJ. position.

**FREEZE button**
For freezing images.

**Volume buttons**
For adjusting the speaker sound level.

**MUTE button**
For temporarily turning off the sound.

**BLACK SCREEN button**
For temporarily display the black screen.

**RESIZE button**
For switching the screen size.

**PICTURE MODE button**
For switching the picture mode.

**WIRED R/C JACK**
For connecting the remote control to the projector when the signals from the remote control cannot reach the remote control sensor.

✎Note

- All the buttons on the remote control, except the mouse/adjustment button and the ADJ./MOUSE switch, are made of luminous material that is visible in the dark. Visibility will diminish over time. Exposure to light will recharge the luminous buttons.

## Usable Range

**The remote control can be used to control the projector within the ranges shown in the illustration.**

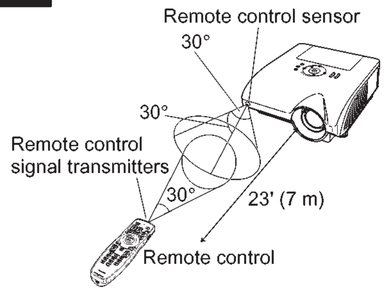
Note

- The signal from the remote control can be reflected off a screen for easy operation. However, the effective distance of the signal may differ depending on the screen material.

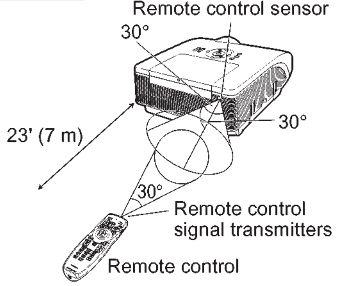
**When using the remote control:**

- Ensure not to drop, expose to moisture or high temperature.
- The remote control may malfunction under a fluorescent lamp. In this case, move the projector away from the fluorescent lamp.

**Front View**

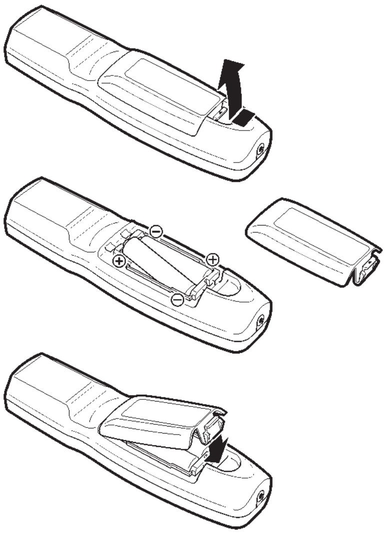


**Rear View**



## Inserting the Batteries

**The batteries (two R-6 batteries ("AA" size, UM/SUM-3, HP-7 or similar)) are supplied in the package.**



**1** **Press the tab and lift open the battery cover in the direction of the arrow.**

**2** **Insert the batteries.**

- Insert the batteries making sure the polarities correctly match the ⊕ and ⊖ marks inside the battery compartment.

**3** **Insert the tabs on the end of the battery cover into their slots and press the cover into position.**

**Incorrect use of the batteries may cause them to leak or explode. Please follow the precautions below.**

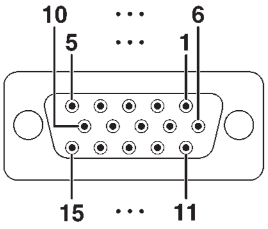
**⚠ Caution**

- Insert the batteries making sure the polarities correctly match the ⊕ and ⊖ marks inside the battery compartment.
- Batteries of different types have different properties, therefore do not mix batteries of different types.
- Do not mix new and old batteries.
  This may shorten the life of new batteries or may cause old batteries to leak.
- Remove the batteries from the remote control once they have run out, as leaving them in can cause them to leak. Battery fluid from leaked batteries is harmful to skin, therefore ensure to first wipe them and then remove them using a cloth.

- The batteries included with this projector may run down in a short period, depending on how they are kept. Ensure to replace them as soon as possible with new batteries.
- Remove the batteries from the remote control if you will not be using the remote control for a long time.

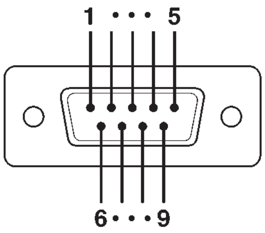
# Connection Pin Assignments

**RGB Signal Terminal (INPUT 1 and OUTPUT (FOR INPUT 1, 2)):** 15-pin mini D-sub female connector



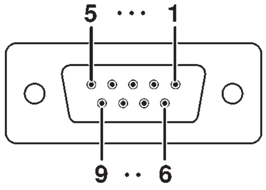
| RGB Input | Component Input |
|---|---|
| 1. Video input (red) | 1. $P_R$ ($C_R$) |
| 2. Video input (green/sync on green) | 2. Y |
| 3. Video input (blue) | 3. $P_B$ ($C_B$) |
| 4. Not connected | 4. Not connected |
| 5. Not connected | 5. Not connected |
| 6. Earth (red) | 6. Earth ($P_R$) |
| 7. Earth (green/sync on green) | 7. Earth (Y) |
| 8. Earth (blue) | 8. Earth ($P_B$) |
| 9. Not connected | 9. Not connected |
| 10. GND | 10. Not connected |
| 11. Not connected | 11. Not connected |
| 12. Bi-directional data | 12. Not connected |
| 13. Horizontal sync signal: TTL level | 13. Not connected |
| 14. Vertical sync signal: TTL level | 14. Not connected |
| 15. Data clock | 15. Not connected |

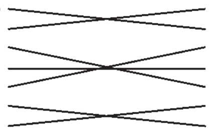
**RS-232C Terminal:** 9-pin D-sub male connector



| Pin No. | Signal | Name | I/O | Reference |
|---|---|---|---|---|
| 1 | | | | Not connected |
| 2 | RD | Receive Data | Input | Connected to internal circuit |
| 3 | SD | Send Data | Output | Connected to internal circuit |
| 4 | | | | Not connected |
| 5 | SG | Signal Ground | | Connected to internal circuit |
| 6 | | | | Not connected |
| 7 | RS | Request to Send | | Connected to CS in internal circuit |
| 8 | CS | Clear to Send | | Connected to RS in internal circuit |
| 9 | | | | Not connected |

**RS-232C Cable Recommended Connection:** 9-pin D-sub female connector

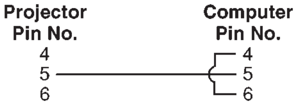




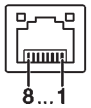
| Pin No. | Signal | Pin No. | Signal |
|---|---|---|---|
| 1 | CD | 1 | CD |
| 2 | RD | 2 | RD |
| 3 | SD | 3 | SD |
| 4 | ER | 4 | ER |
| 5 | SG | 5 | SG |
| 6 | DR | 6 | DR |
| 7 | RS | 7 | RS |
| 8 | CS | 8 | CS |
| 9 | CI | 9 | CI |

Note

- Depending on the controlling device used, it may be necessary to connect Pin 4 and Pin 6 on the controlling device (e.g. computer).

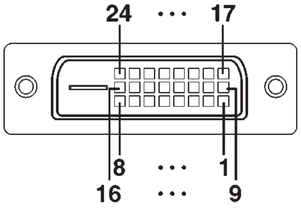


**LAN Terminal :** 8-pin RJ-45 modular connector



| Pin No. | Signal | Pin No. | Signal |
|---|---|---|---|
| 1 | TX+ | 5 | |
| 2 | TX– | 6 | RX– |
| 3 | RX+ | 7 | |
| 4 | | 8 | |

## DVI digital Terminal (INPUT 3)



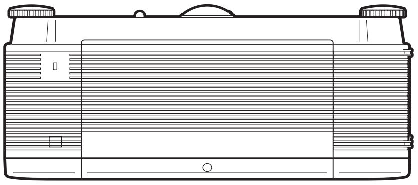
| Pin No. | Signal |
|---|---|
| 1 | T.M.D.S. Data 2– |
| 2 | T.M.D.S. Data 2+ |
| 3 | T.M.D.S. Data 2 Shield |
| 4 | Not connected |
| 5 | Not connected |
| 6 | DDC Clock |
| 7 | DDC Data |
| 8 | Not connected |
| 9 | T.M.D.S. Data 1– |
| 10 | T.M.D.S. Data 1+ |
| 11 | T.M.D.S. Data 1 Shield |
| 12 | Not connected |
| 13 | Not connected |
| 14 | +5 V Power |
| 15 | Ground |
| 16 | Hot Plug Detect |

| Pin No. | Signal |
|---|---|
| 17 | T.M.D.S. Data 0– |
| 18 | T.M.D.S. Data 0+ |
| 19 | T.M.D.S. Data 0 Shield |
| 20 | Not connected |
| 21 | Not connected |
| 22 | T.M.D.S. Clock Shield |
| 23 | T.M.D.S. Clock+ |
| 24 | T.M.D.S. Clock– |

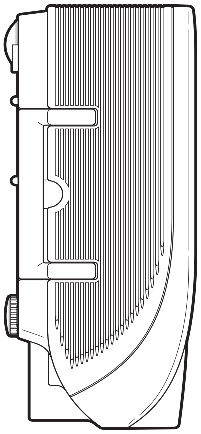
# DIMENSIONS

**Units: inches (mm)**

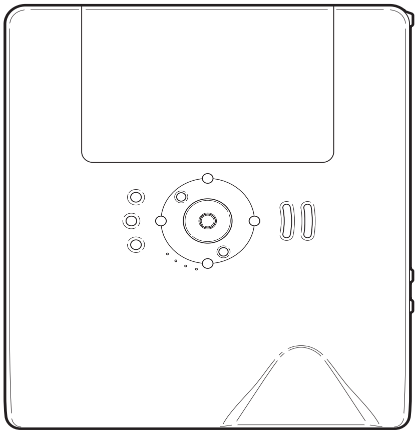
**Rear View**



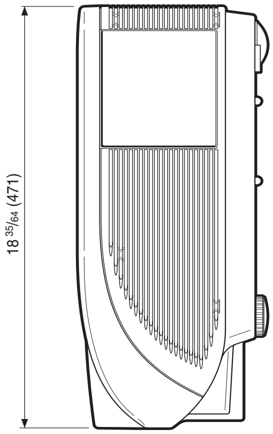
**Side View**



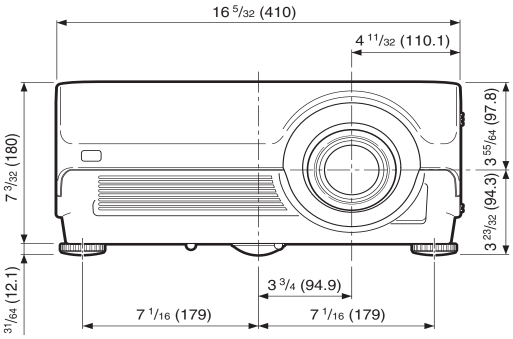
**Top View**



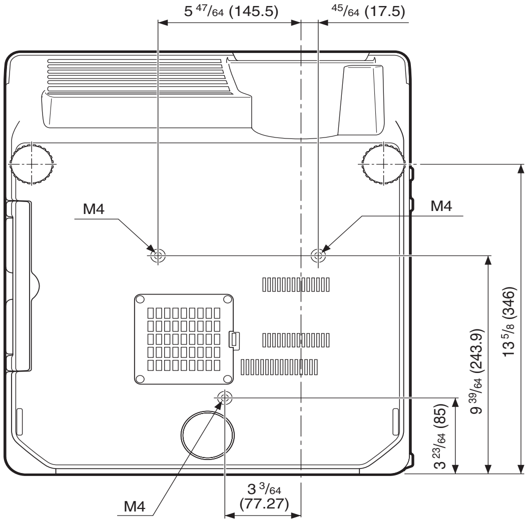
**Side View**



**Front View**


16 5/32 (410)
4 11/32 (110.1)
7 3/32 (180)
3 55/64 (97.8)
3 23/32 (94.3)
31/64 (12.1)
3 3/4 (94.9)
7 1/16 (179)
7 1/16 (179)

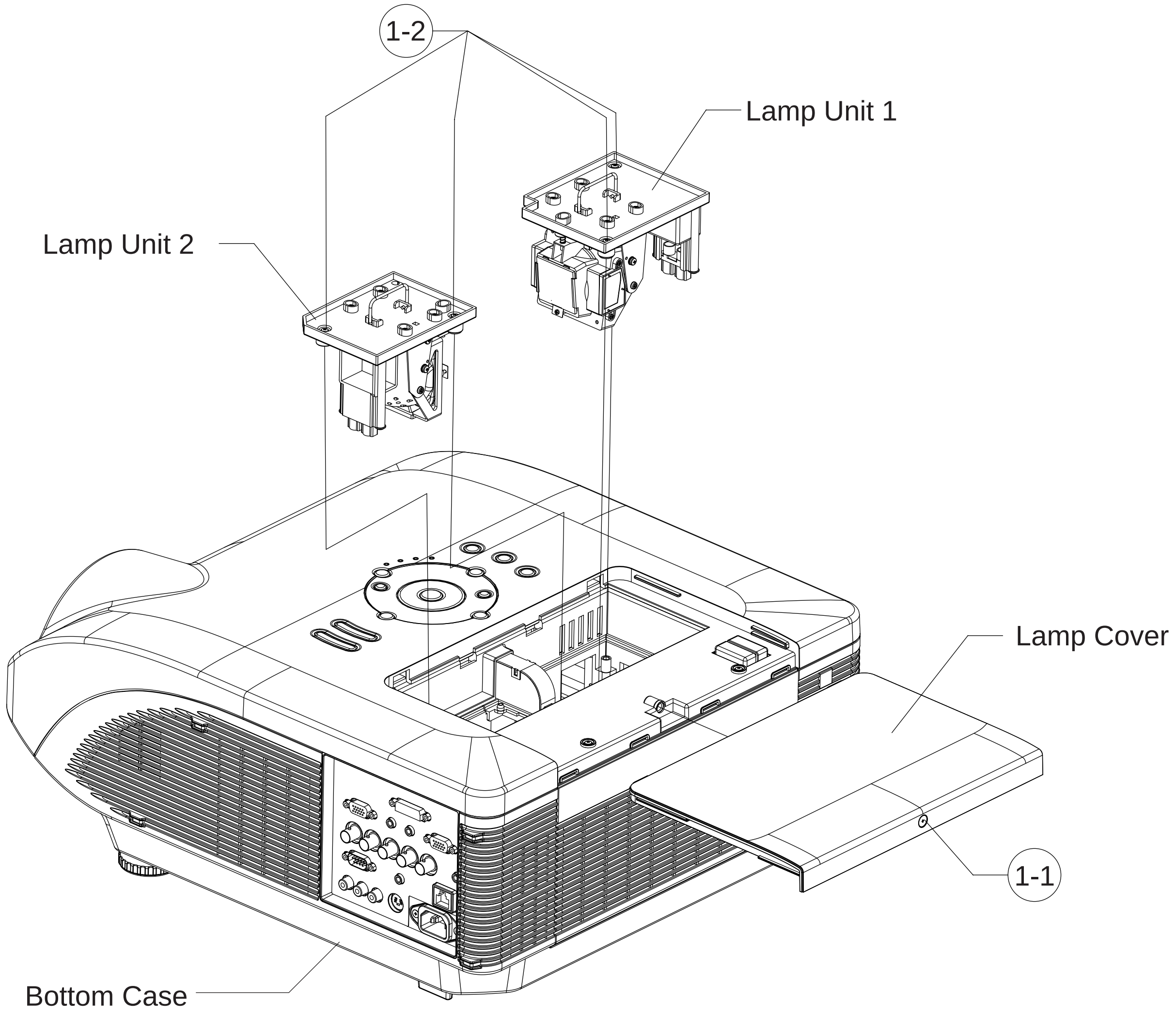
**Bottom View**


5 47/64 (145.5)
45/64 (17.5)
M4
M4
9 39/64 (243.9)
13 5/8 (346)
3 23/64 (85)
M4
3 3/64
(77.27)

# REMOVING OF MAJOR PARTS

## 1. Removing the Lamp Unit

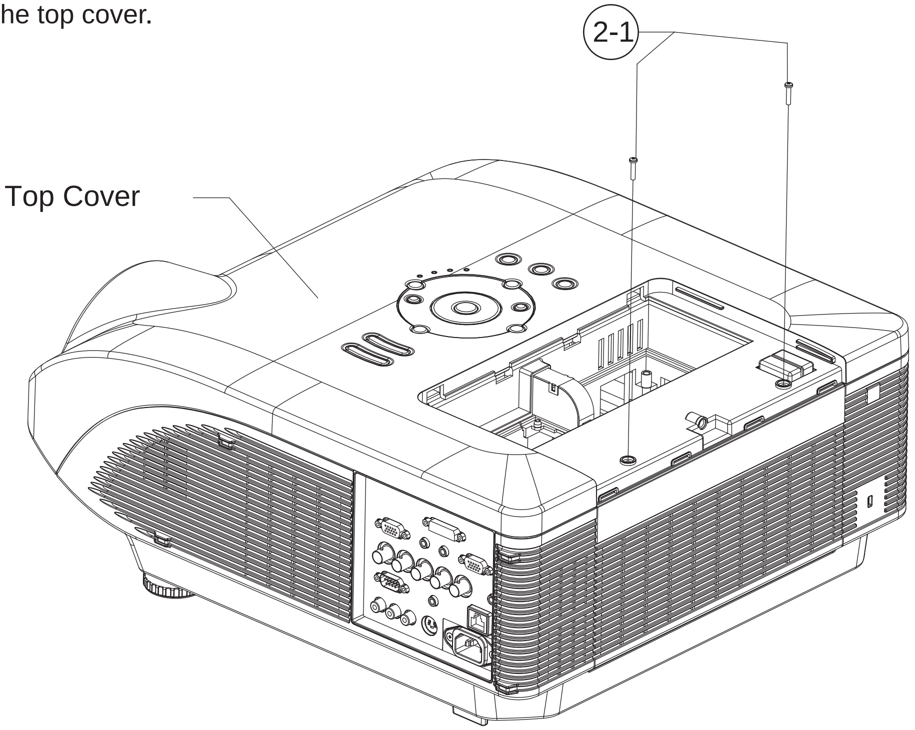
1-1. Remove the screw from the lamp cover and detach the lamp cover.
1-2. Remove the four screws from the lamp units and take out the lamp units.

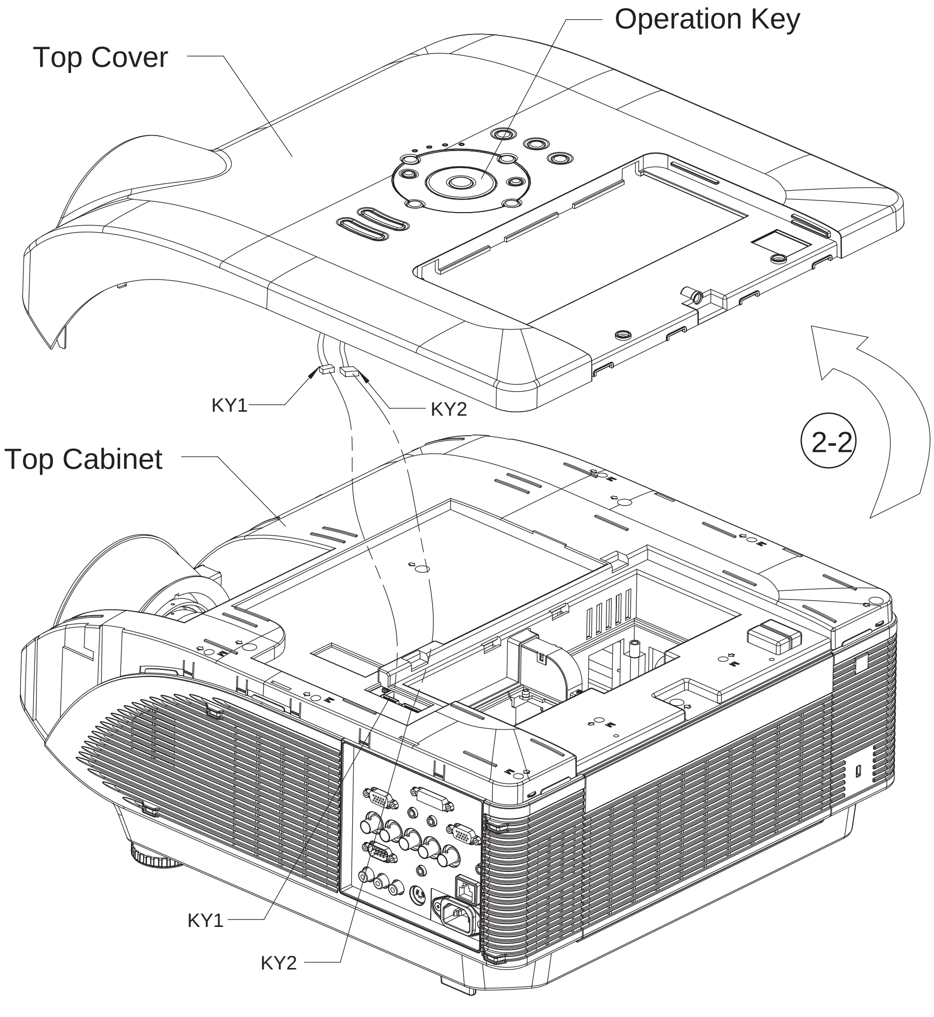

1-2
Lamp Unit 1
Lamp Unit 2
Lamp Cover
1-1
Bottom Case

## 2. Removing the Top Cover

2-1. Remove the two screws from the top cover.

2-2. Slowly lift the back of the top cover and disconnect the operation key connectors (KY1 and KY2). Pull up and off the top cover.

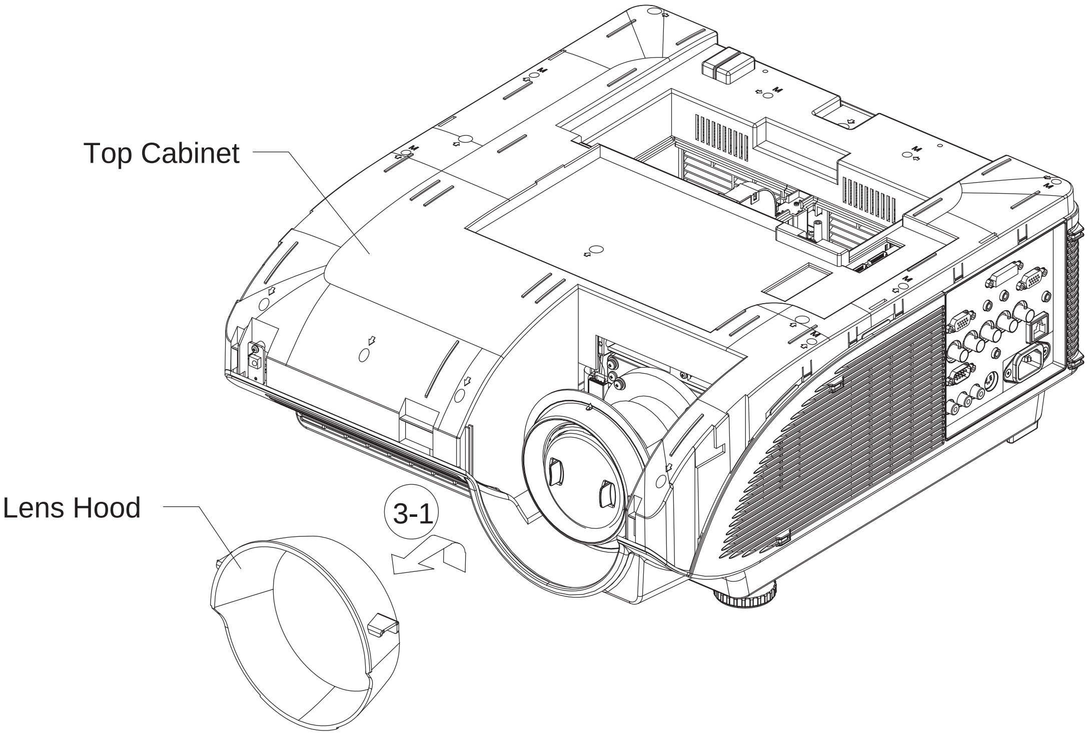

2-1
Top Cover


Operation Key
Top Cover
KY1
KY2
2-2
Top Cabinet
KY1
KY2

For XG-PH50X-NL, the lens removal operations (sections 3 - 6) are unnecessary.

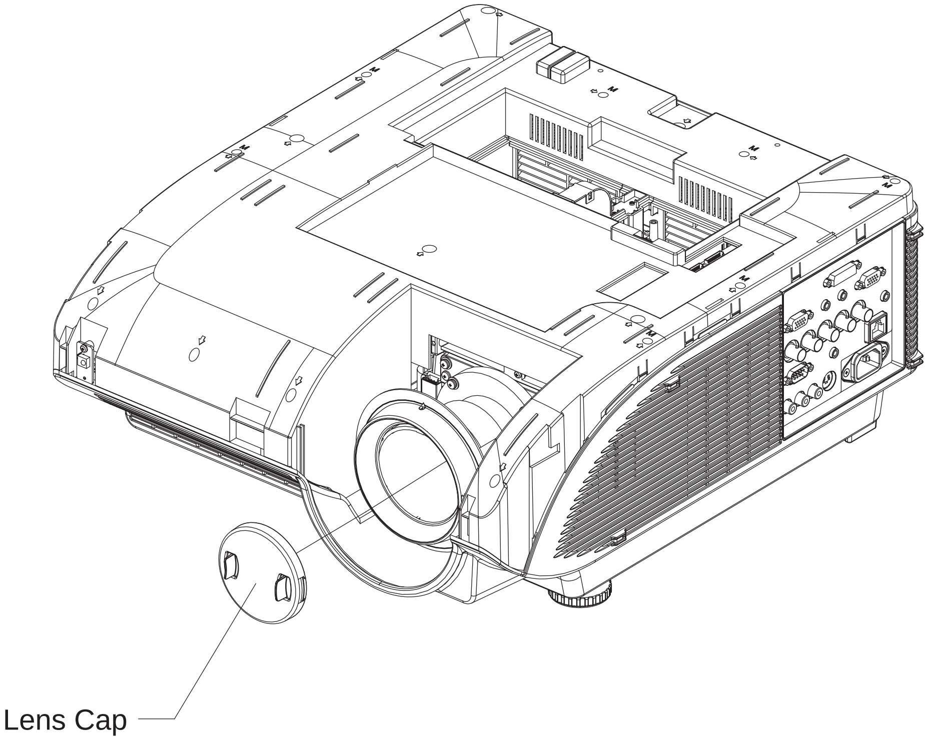
## 3. Removing the Lens Hood

3-1. Slowly lift the lens hood up until it can be moved forward and then move it forward and detach the lens hood.


Top Cabinet
Lens Hood
3-1

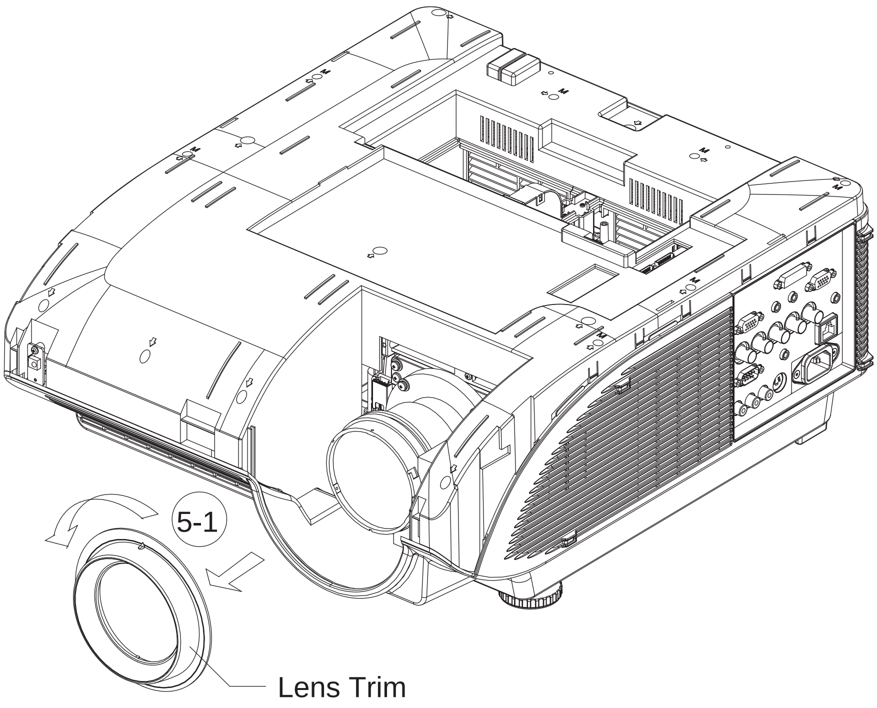
## 4. Removing the Lens Cap

4-1. Remove the lens cap.



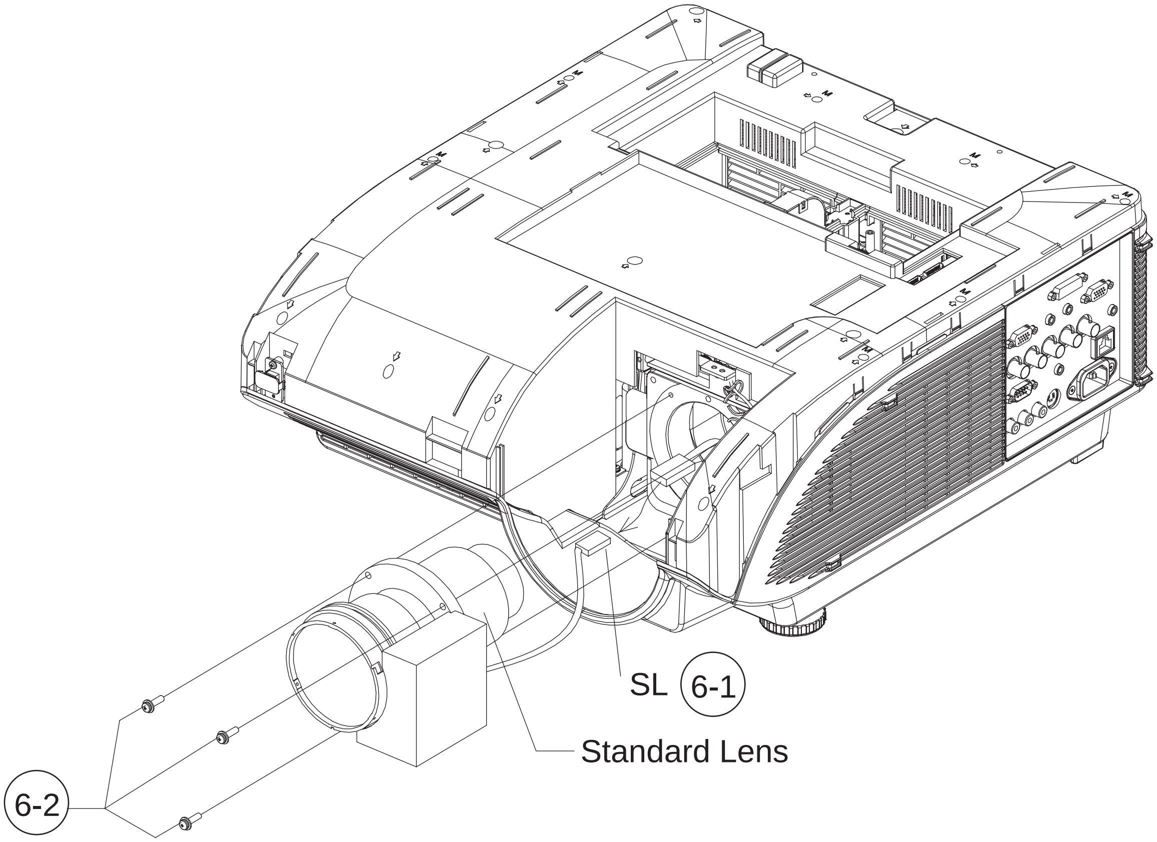
## 5. Removing the Lens Trim

5-1. Rotate the lens trim counterclockwise and then detach the lens trim.



# 6. Removing the Standard Lens

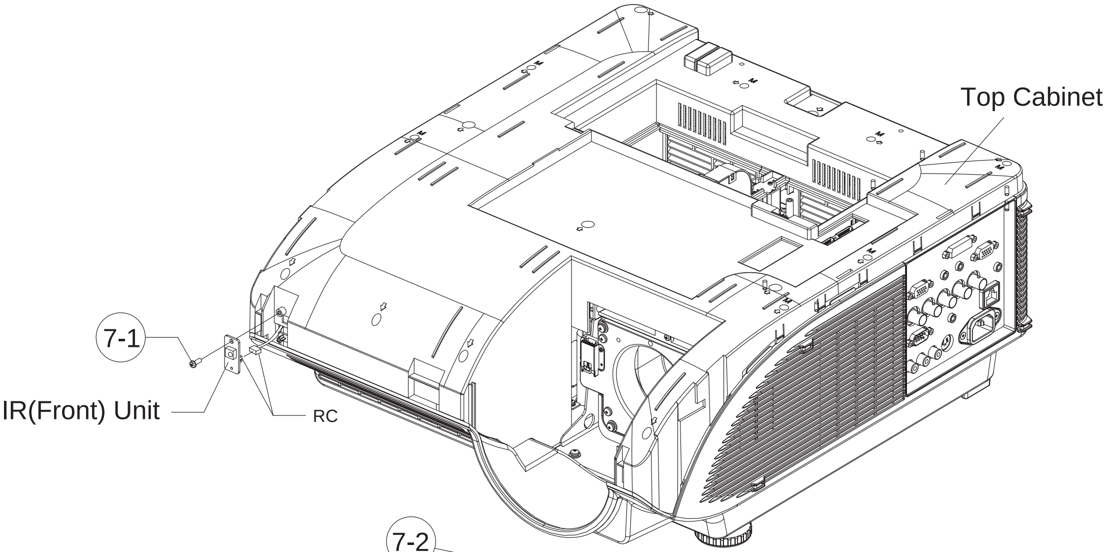
6-1. Disconnect the standard lens connector (SL).
6-2. Remove the three screws from the standard lens and take out the standard lens.

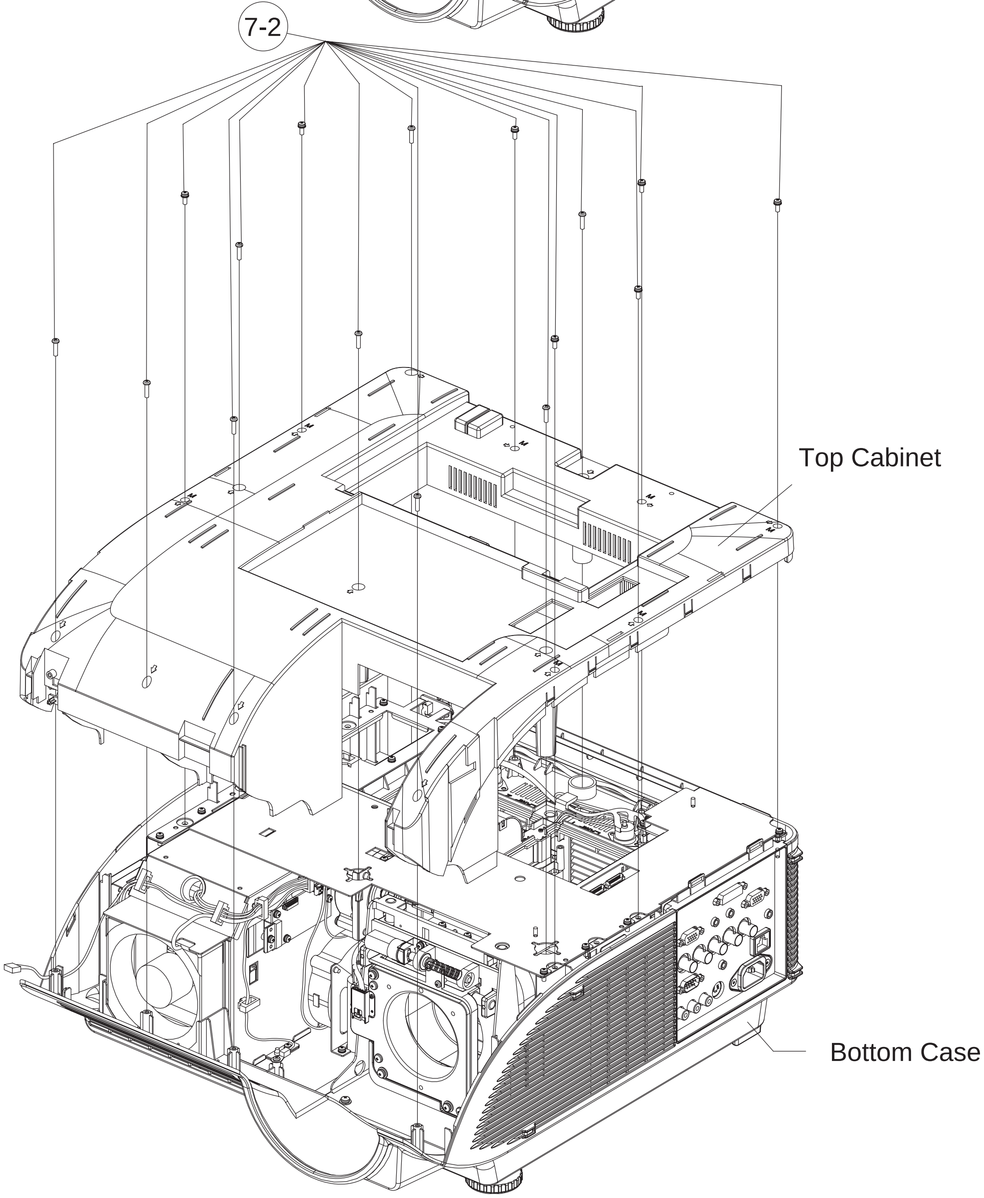

SL
6-1
Standard Lens
6-2

# 7. Removing the Top Cabinet

7-1. Remove the screw from IR(Front) unit, take out the IR(Front) unit and then disconnect the IR(Front) unit connector (RC).

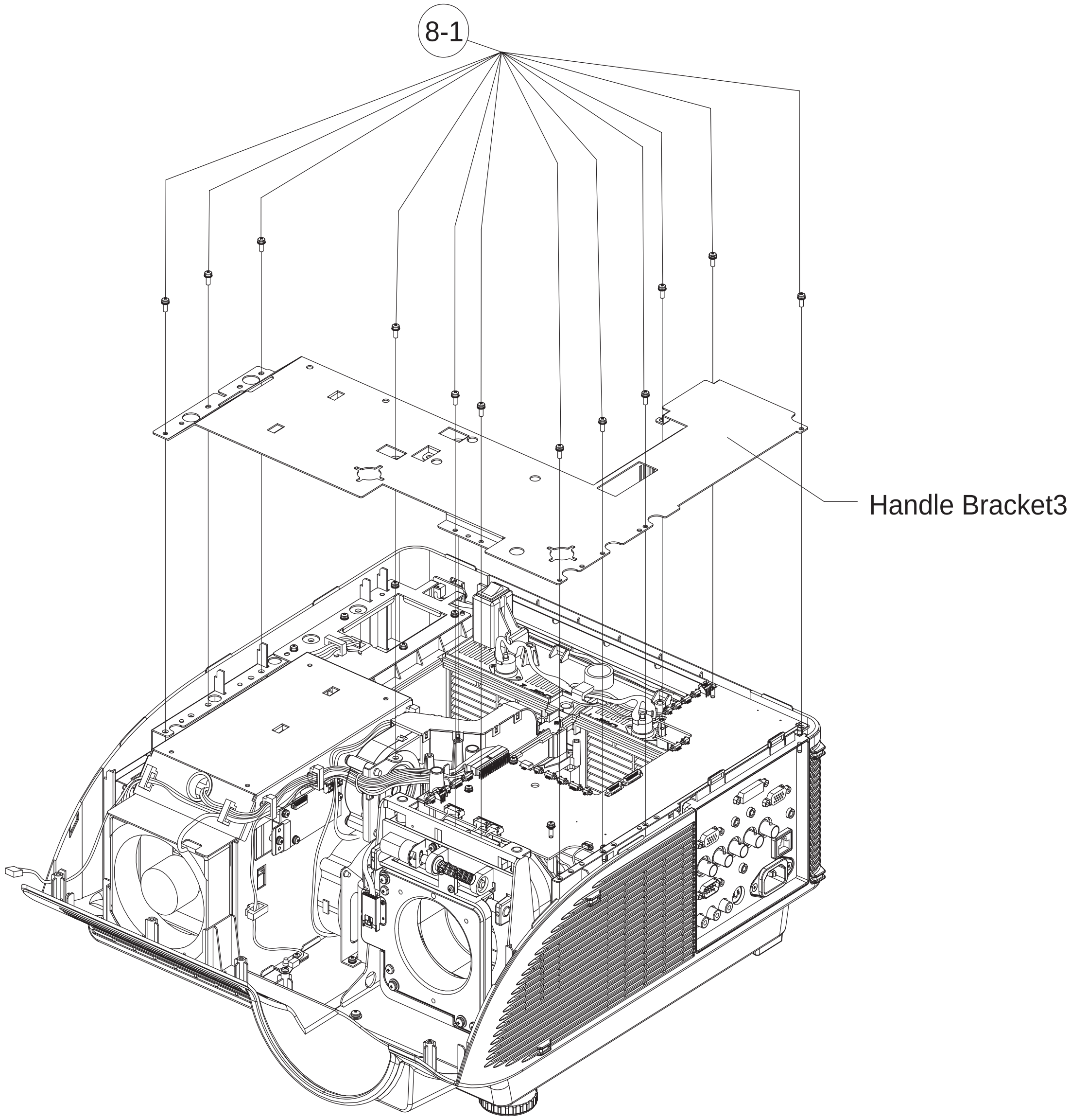
7-2. Remove the sixteen screws from the top cabinet and then pull up and off the top cabinet.


Top Cabinet
7-1
IR(Front) Unit
RC


7-2
Top Cabinet
Bottom Case

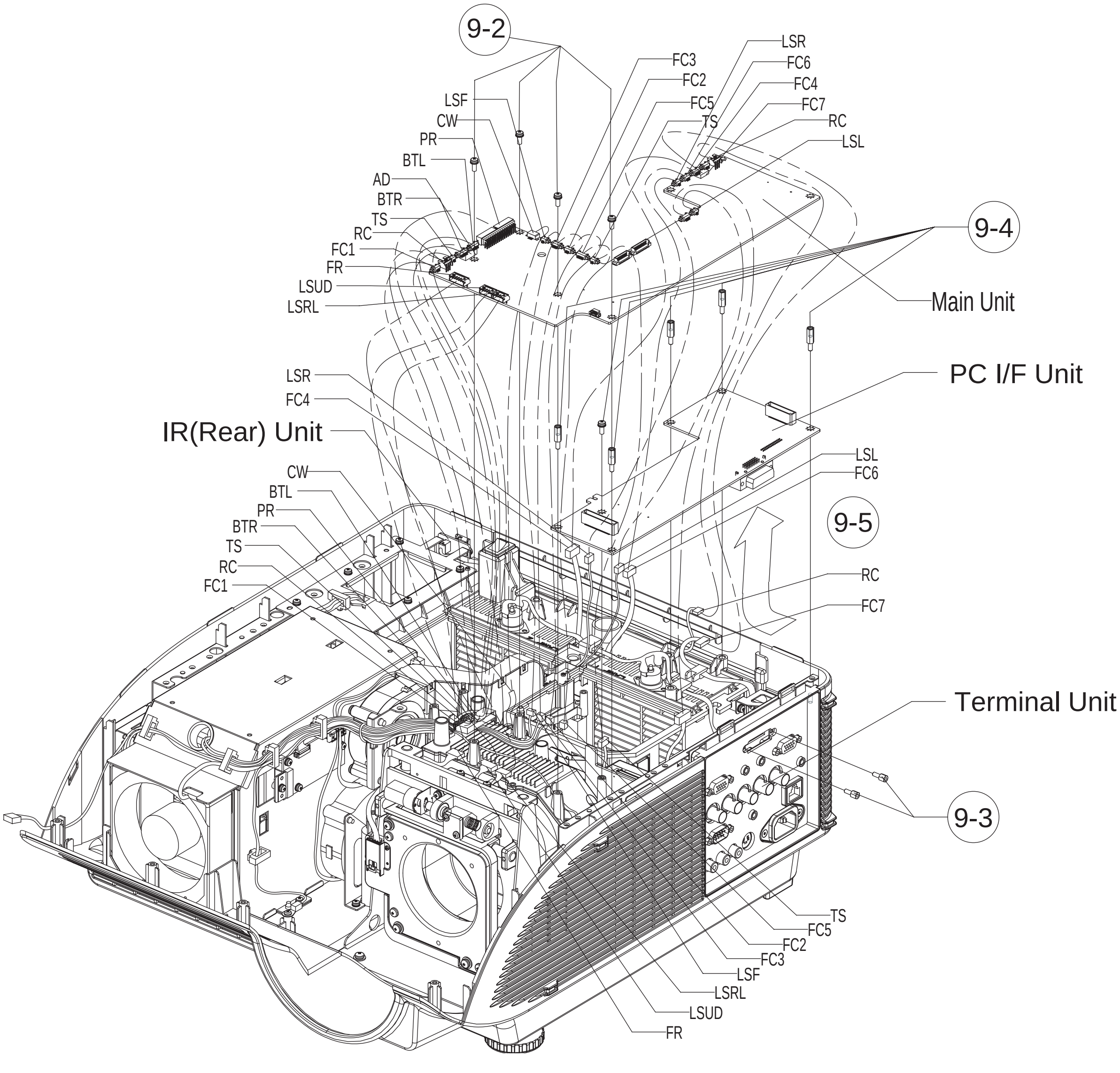
## 8. Removing the Handle Bracket3

8-1. Remove the Twelve screws from the handle bracket3 and detach the handle bracket3.


8-1
Handle Bracket3

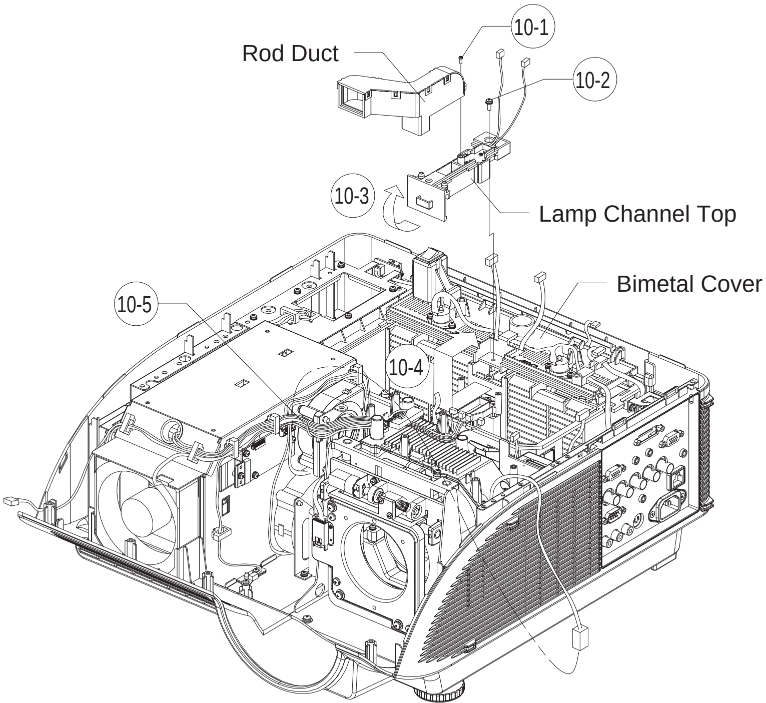
## 9. Removing the PWBA Units

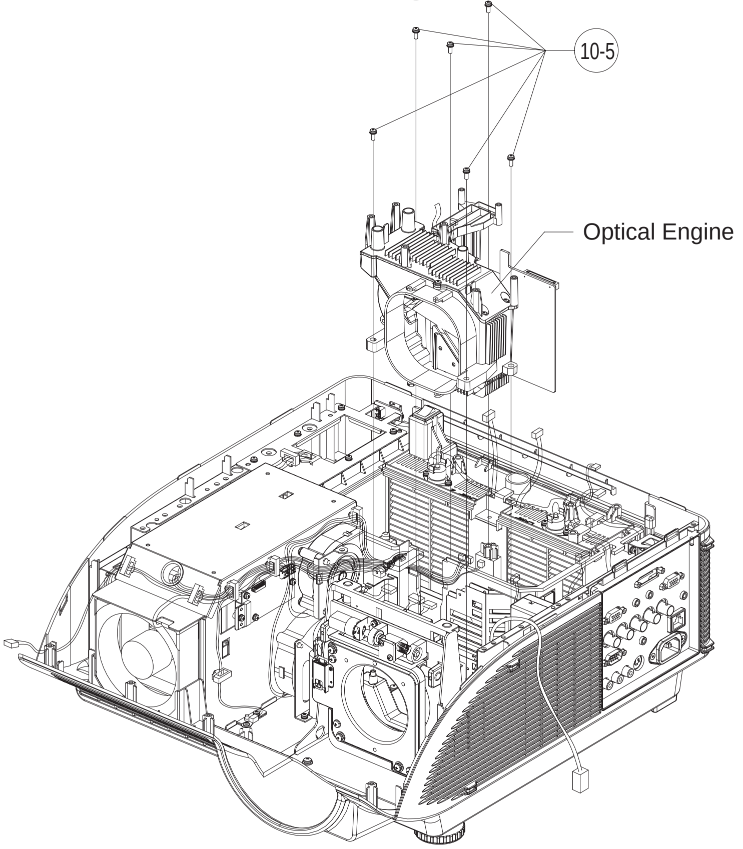
9-1. Disconnect all the connector from the Main Unit.
9-2. Remove the four screws from the Main Unit. Detach the Main Unit from the PC I/F Unit.
9-3. Remove the two spacers from the PC I/F Unit.
9-4. Remove the five spacers and the screw.
9-5. Disconnect the PC I/F Unit from the Terminal Unit and then detach the PC I/F Unit.


9-2
LSR
FC3
FC6
FC2
FC4
LSF
FC5
FC7
CW
TS
RC
PR
LSL
BTL
AD
BTR
9-4
TS
RC
FC1
FR
LSUD
LSRL
Main Unit
LSR
PC I/F Unit
FC4
IR(Rear) Unit
LSL
CW
FC6
BTL
PR
9-5
BTR
TS
RC
RC
FC1
FC7
Terminal Unit
9-3
TS
FC5
FC2
FC3
LSF
LSRL
LSUD
FR

## 10. Removing the Optical Engine

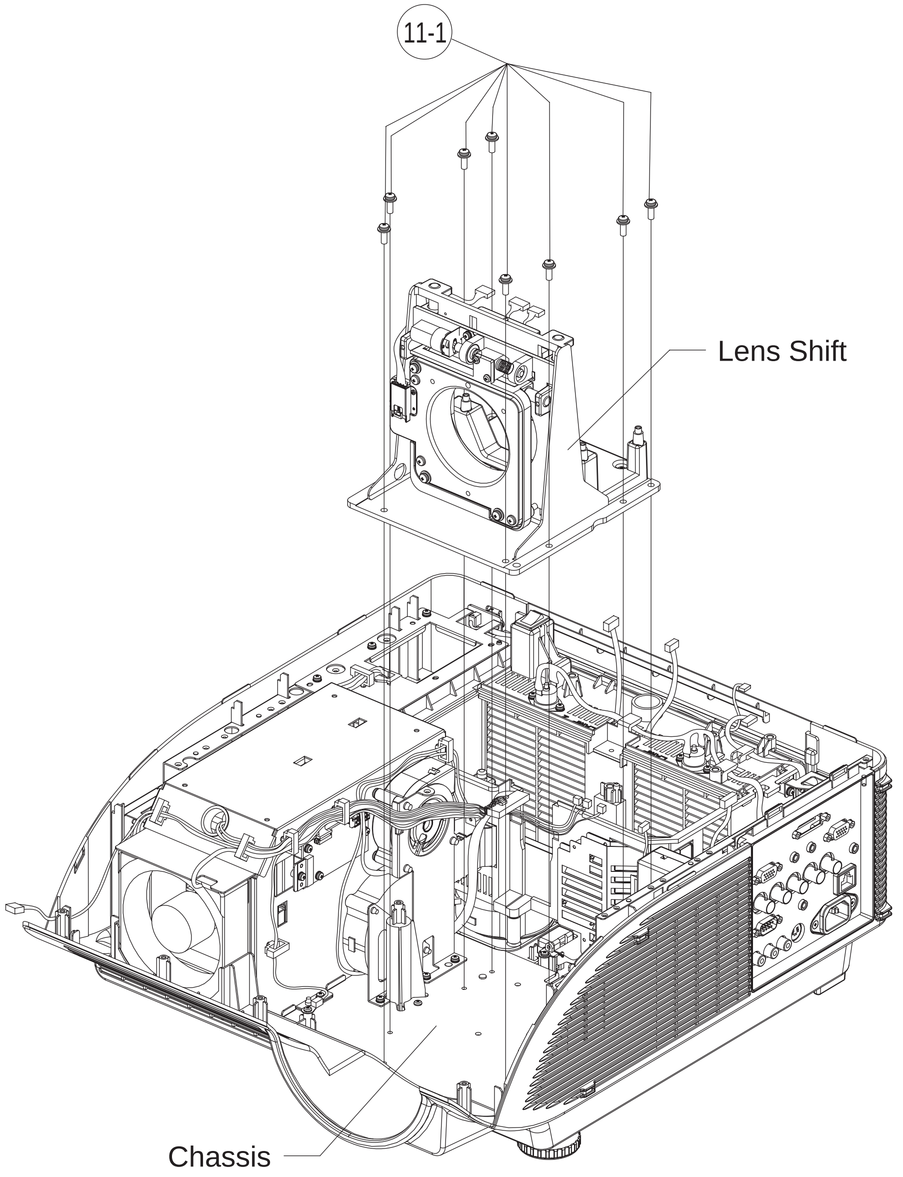
10-1. Remove the screw from the rod duct and then detach the rod duct.
10-2. Remove the screw from the lamp channel top.
10-3. Unhook the front of the lamp channel top and take it out.
10-4. Slide the bimetal cover and detach it out.
10-5. Release the cable tie and then disconnect the left speaker connector. Remove the six screws from the optical engine and then lift the optical engine out of position.


10-1
Rod Duct
10-2
10-3
Lamp Channel Top
Bimetal Cover
10-5
10-4


10-5
Optical Engine

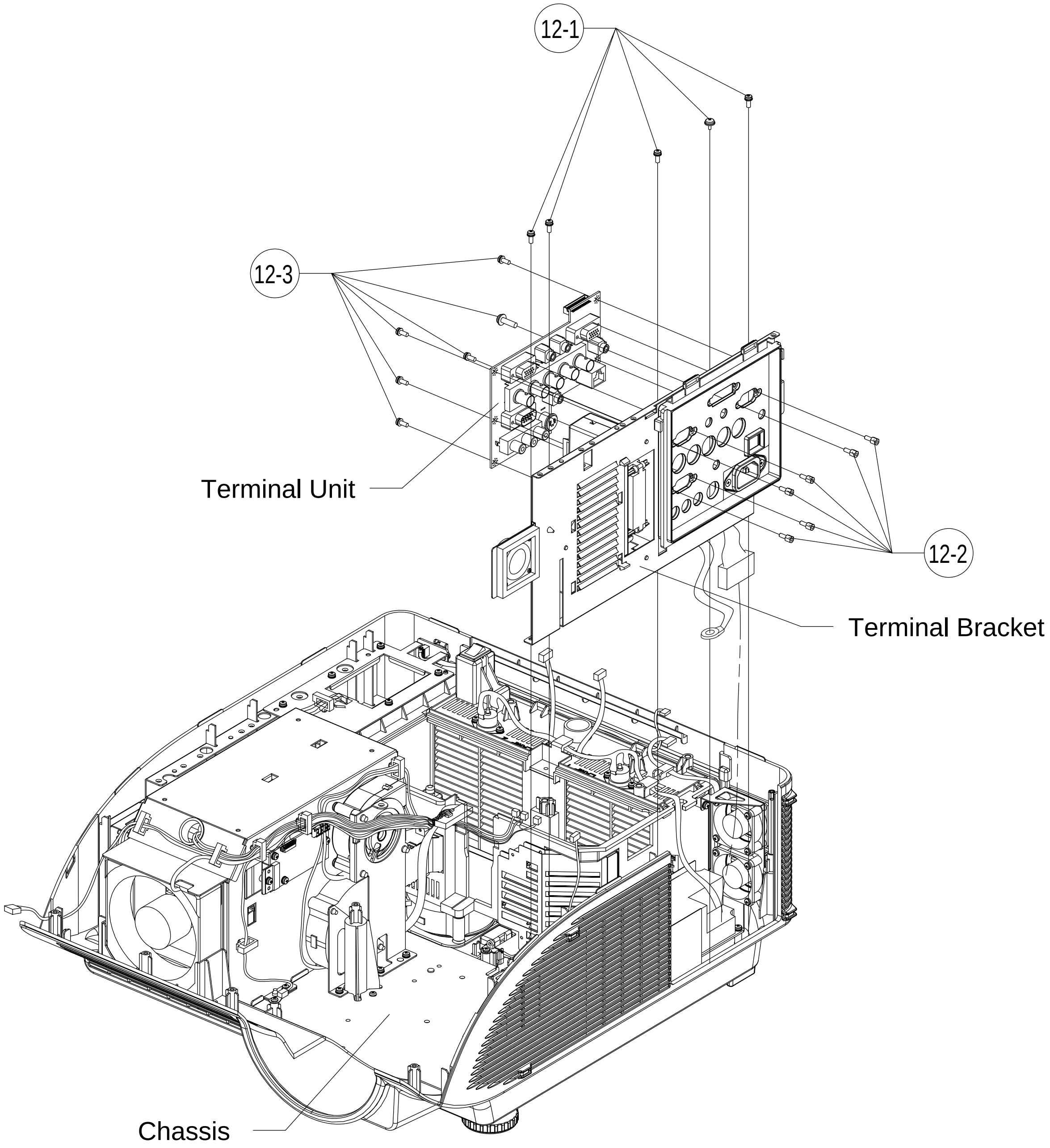
## 11. Removing the Lens Shift

11-1. Remove the eight screws from the lens shift and then lift the lens shift out of position.


11-1
Lens Shift
Chassis

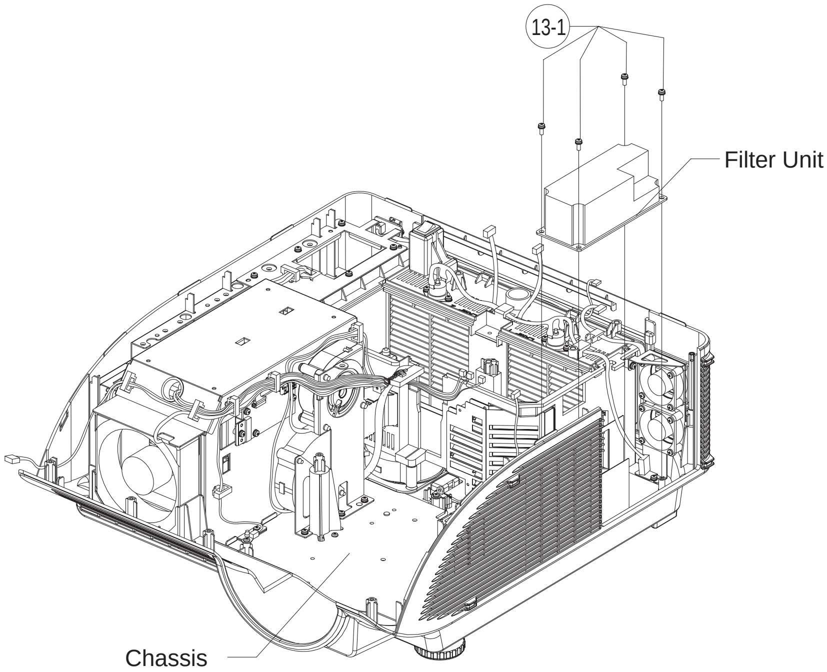
## 12. Removing the Terminal Unit

12-1. Remove the five screws from the terminal bracket, lift the terminal bracket and then disconnect the AC socket.
12-2. Remove the six spacers from the terminal unit.
12-3. Remove the six screws from the terminal unit and take out the terminal unit.


12-1
12-3
Terminal Unit
12-2
Terminal Bracket
Chassis

## 13. Removing the Filter Unit

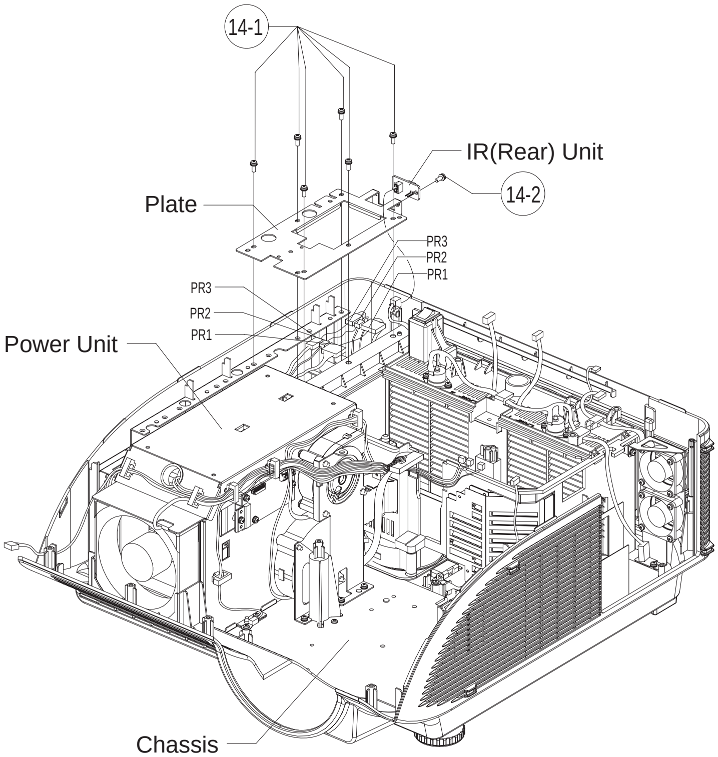
13-1. Disconnect all the connectors from the filter unit. Remove the four screws from the filter unit and then take it out.


13-1
Filter Unit
Chassis

## 14. Removing the IR(Rear) Unit

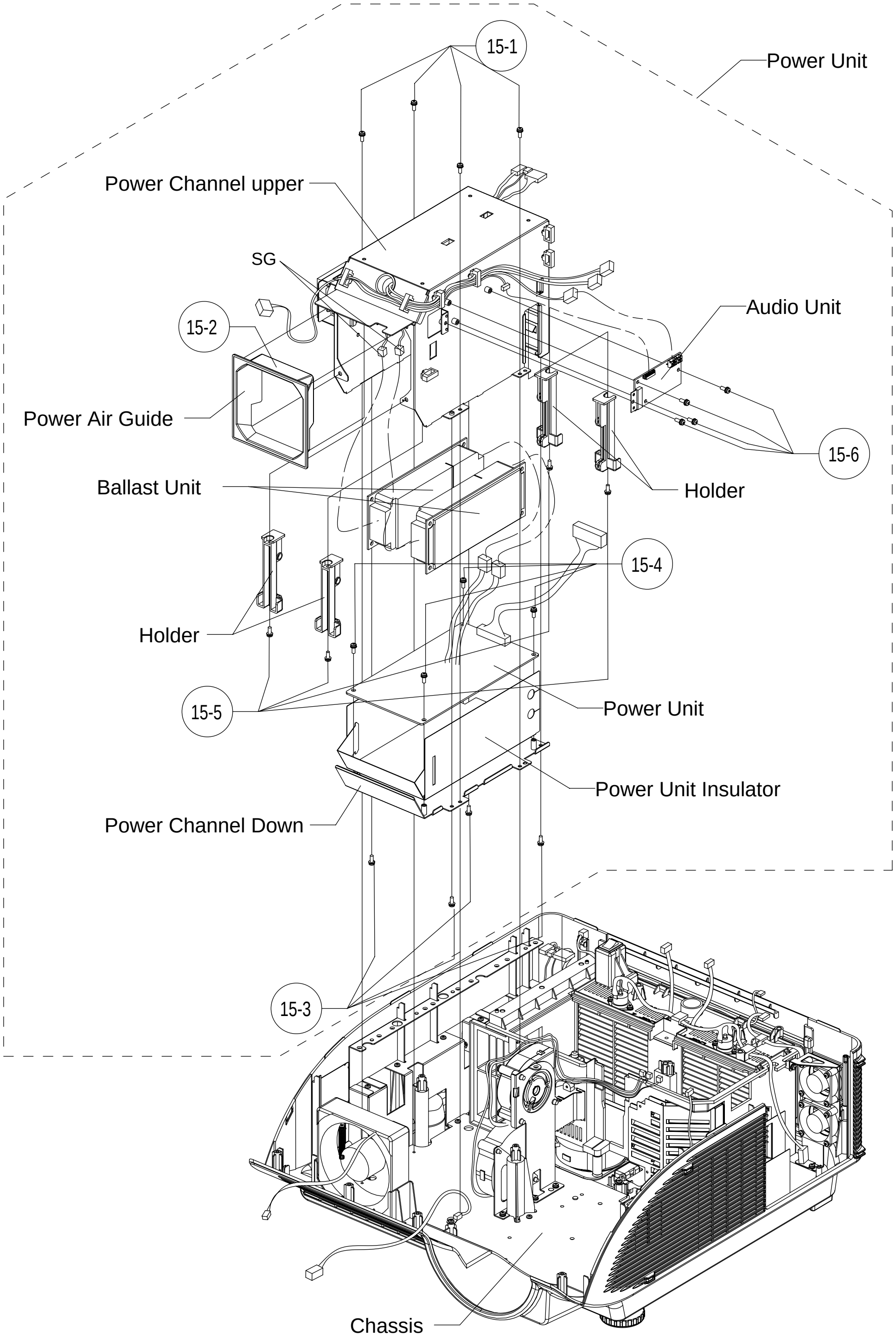
14-1 Disconnect all the connectors from the power unit. Remove the six screws from the Plate and then take out the Plate.

14-2. Remove the screw from the IR(Rear) unit and detach the IR(Rear) unit.


14-1
IR(Rear) Unit
14-2
Plate
PR3
PR2
PR1
PR3
PR2
PR1
Power Unit
Chassis

## 15. Removing the Power Unit and Audio Unit

15-1. Remove the four screws from the power unit.
15-2. Detach the power air guide from the power channel upper.
15-3. Remove the four screws from the power channel down and then disconnect the two power connector PR.
15-4. Remove the four screws from the power unit and then take out the power unit.
15-5. Remove the four screws from the holders and then disconnect the signal connectors SG.
15-6 Remove the four screws from the audio unit and then take out the audio unit.

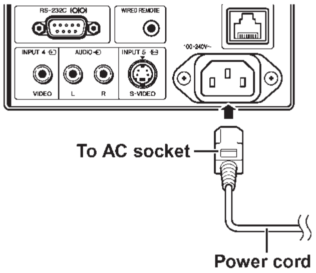

15-1
Power Unit
Power Channel upper
SG
15-2
Audio Unit
Power Air Guide
15-6
Ballast Unit
Holder
15-4
Holder
15-5
Power Unit
Power Unit Insulator
Power Channel Down
15-3
Chassis

# RESETTING THE TOTAL LAMP TIMER

- **Resetting the total lamp timer**
  When replacing the lamp, reset the total lamp timer in the procedure below.

**Info**

- Make sure to reset the lamp timer only when replacing the lamp. If you reset the lamp timer and continue to use the same lamp, this may cause the lamp to become damaged or explode.


RS-232C
WIRED REMOTE
INPUT 4
AUDIO
INPUT 5
VIDEO
L
R
S-VIDEO
100-240V~
To AC socket
Power cord

## 1 Connect the power cord.

- Plug the power cord into the AC socket of the projector.

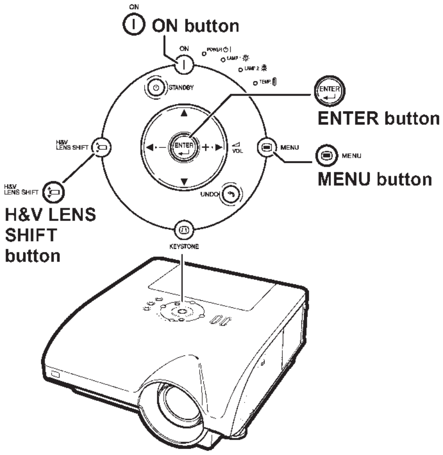
## 2 Reset the lamp timer.

**For Lamp 1**

- When you reset the timer for AN-PH50LP1, while simultaneously holding down H&V LENS SHIFT and ENTER, press ON on the projector.
- “LAMP 1 100%” is displayed, indicating that the lamp timer is reset.

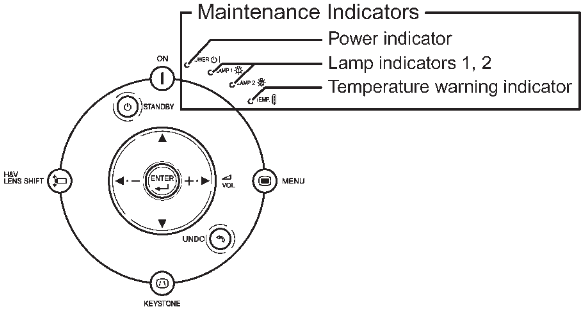
**For Lamp 2**

- When you reset the timer for AN-PH50LP2, while simultaneously holding down MENU and ENTER, press ON on the projector.
- “LAMP 2 100%” is displayed, indicating


ON button
ENTER button
MENU button
H&V LENS SHIFT button
STANDBY
UNDO
KEYSTONE
VOL

### Lamp

- It is recommended that the lamp units (optional: AN-PH50LP1 and AN-PH50LP2) be replaced when the remaining lamp life becomes 5% or less, or when you notice a significant deterioration in the picture and color quality. The lamp life (percentage) can be checked with the on-screen display.
- Purchase a replacement lamp unit of type AN-PH50LP1 and AN-PH50LP2 from your place of purchase, nearest Sharp Authorized Projector Dealer or Service Center.
  - **The warning lights on the projector indicate problems inside the projector.**
  - **If a problem occurs, either the temperature warning indicator or the lamp indicator will illuminate red, and the projector will enter the standby mode. After the projector has entered the standby mode, follow the procedures given below.**


Maintenance Indicators
Power indicator
Lamp indicators 1, 2
Temperature warning indicator
ON
STANDBY
H&V LENS SHIFT
ENTER
VOL
MENU
UNDO
KEYSTONE

**About the temperature warning indicator**

TEMP.

If the temperature inside the projector increases, due to blockage of the air vents, or the setting location, “TEMP.” will illuminate in the lower left corner of the picture. If the temperature keeps on rising, the lamp will turn off and the temperature warning indicator will blink, the cooling fan will run for a further 90 seconds, and then the projector will enter the standby mode. After “TEMP.” appears, ensure to perform the measures

| Maintenance indicator | | | Problem | Cause | Possible solution |
|---|---|---|---|---|---|
| | Normal | Abnormal | | | |
| Temperature warning indicator | Off | Red on (Standby) | The internal temperature is abnormally high. | • Blocked air intake | • Relocate the projector to an area with proper ventilation. |
| | | | | • Cooling fan break-down<br>• Internal circuit failure<br>• Clogged air intake<br>• Clogged intake vent cover | • Take the projector to your nearest Sharp Authorized Projector Dealer or Service Center for repair.<br>• Clean the air vents and the intake vent cover. |
| Lamp indicators 1, 2 | Green on (Green blinks when the lamp is warming up.) | Red on | The lamp does not illuminate. | • The lamp is shut down abnormally. | • Disconnect the power cord from the AC outlet, and then connect it again. |
| | | | Time to change the lamp. | • Remaining lamp life becomes 5% or less. | • Carefully replace the lamp.<br>• Take the projector to your nearest Sharp Authorized Projector Dealer or Service Center for repair.<br>• Please exercise care when replacing the lamp. |
| | | Red on (Standby) | The lamp does not illuminate. | • Burnt-out lamp<br>• Lamp circuit failure | |
| Power indicator | Green on/ Red on | Red blinks | The power indicator blinks in red when the projector is on. | • The intake vent cover is open. | • Securely install the cover.<br>• If the power indicator blinks even when the intake vent cover is securely installed, contact your nearest Sharp Authorized Projector Dealer or Service Center for advice. |

**Info**

- If the temperature warning indicator blinks and the projector enters the standby mode, the temperature warning indicator starts to illuminate. Check whether any of the ventilation holes are blocked and then try turning the power back on. Wait until the projector has cooled down completely before plugging in the power cord and turning the power back on. (At least 10 minutes.)
- If the power is turned off for a brief moment due to power outage or some other cause while using the projector, and the power supply recovers immediately after that, the lamp indicator will illuminate in red and the lamp may not be lit. In this case, unplug the power cord from the AC outlet, replace the power cord in the AC outlet and then turn the power on again.
- Do not unplug the power cord after the projector has entered the standby mode and while the cooling fan is running. The cooling fan runs for about 90 seconds.

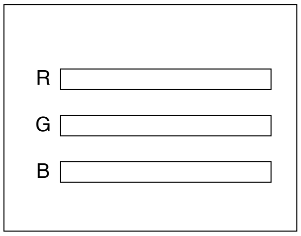
# ELECTRICAL ADJUSTMENT

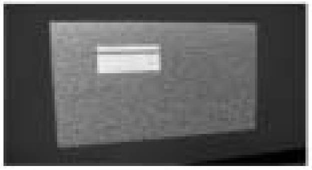
- Turn on the power (lamp on state) and wait for 15 minutes for aging.
- Enter the adjustment process mode with S3602 (tact switch) on the main board.
  In case that top cabinet covered S3602, you can enter by pushing key continuously in sequence.

| | |
|---|---|
| key pad | On -> Up -> Down -> Up -> Down -> Enter -> Enter -> Menu |
| Remote controler | On -> Vol up -> Vol down -> Vol up -> Vol down -> Enter -> Enter -> Menu |

* You can exit from factory mode by same method.(Or select "EXIT" in the process mode to exit.)

- Select the group to adjust with the DOWN key or the UP key, and enter the adjustment item with the ENTER key on the remote control or key pad.
- Select the adjustment item with the DOWN key or the UP key.
- Use the LEFT key or the RIGHT key for adjustment.
- To return from the adjustment item to the adjustment group, use the UNDO key or the MENU key.
- Change internal test pattern and input signal with the MUTE key

| No. | Adjusting point | Adjusting conditions | Adjusting procedure |
|---|---|---|---|
| 1 | **Initialization of EEPROM** | 1. Turn on the power (the lamp lights up) and warm up the system for 15 minutes.<br>2. Select the following group and subject.<br>Group: SSS<br>Subject: S2 | 1. Press S3602 to enter the process mode.<br>2. Execute the S2 command on the SSS menu.<br>*With the S2 command, all the circuit boards than the PC board will be initialized.<br>(Note)<br>Since the PC I/F unit is initialized with S1, do not carry out S1.<br>The PC I/F unit is already adjusted.<br>When the PC I/F unit must be adjusted, in such case as S1 is carried out by mistake, adjust it according to the "PC I/F adjustment method" at the end of this document.<br>3. Wait approximately 30 seconds and when "INPUT1" appears, turn off the power.<br>4. After all the fans stop, turn the power back on. |
| 2 | **Write MAC address** | | 1. Read a sticker which is written mac address on main board.<br>2. Write MAC address by 232c serial cable.(For the procedure, refer to the attachment.) |
| 3 | **Adjustment of CW index** | 1. Signal input: 64 STEP color bar signal.<br>2. Select the following group and subjects.<br>Group : DLP<br>Subject : CW-INDEX | 1. Feed the signal to INPUT 1.<br>2. Select subject and make adjustment so that the uniformity should be smooth.<br><br> |
| 4 | **Adjustment of DLP voltage** | 1. SRead voltage rank of DLP description.<br>2. Select the following group and subjects.<br>Group : DLP<br>Subject : DMD-BIN | 1. Adjust DMD-BIN corresponding to the rank which has been read. (on the main board)<br>Rank / setting value<br>B / 0<br>C / 1<br>D / 2<br>E / 3<br>*Carry out adjustment when DLP chip or PC board has been replaced |

| No. | Adjusting point | Adjusting conditions | Adjusting procedure |
|---|---|---|---|
| 5-1 | **Adjustment of Video brightness** | 1. Select the following group and subject.<br>Group : VIDEO<br>Subject : BRIGHT | 1. Check that the value is 115. |
| 5-2 | **Adjustment of Video contrast** | 1. Select the following group and subject.<br>Group : VIDEO<br>Subject : PICTURE-SUB | 1. Check that the value is 96. |
| 6 | **Adjustment of component Cr/ Cb offset (1)** | 1. Feed the color difference signal(480i) to INPUT1<br>: Y 0% brightness,<br>Cb and Cr 0% white patterns.<br>2. Select the following group and subject.<br>Group : COMPO<br>Subject : COMPO-AUTO | 1. After signal input, select COMPO-AUTO for automatic adjustment. |
| 7 | **Adjustment ofcomponent brightness** | 1. Feed the color difference signal(480i) to INPUT1<br>: Y 0% brightness,<br>Cb and Cr 0% white patterns.<br>2. Select the following group and subject.<br>Group : COMPO<br>Subject : G-BRIGHT | 1. Make adjustment so that some bits should be missing in the picture.<br>* refer to the following photo image<br> |
| 8 | **Adjustment of component Cr/ Cb offset (2)** | 1. Feed the color difference signal(480i) to INPUT1<br>: Y 0% brightness,<br>Cb and Cr 0% white patterns.<br>2. Select the following group and subject.<br>Group : COMPO<br>Subject : CR-OFFSET | 1. Reduce the CR-OFFSET value by 2 points. |
| 9 | **Adjustment of RGB white balance** | 1. Feed the 50% gray pattern signal (XGA, 60 Hz) to INPUT1.<br>2. Select the following group and subject.<br>Group :DLP<br>Subjects : R1-GAIN (Red)<br>B1-GAIN (Blue) | 1. Adjust R-1 GAIN and B1-GAIN so that x-value should be 290 ± 3 and y-value 310 ± 3. |
| 10 | **Adjustment of sRGBwhite balance** | 1. Feed the 50% gray pattern signal (XGA, 60 Hz to INPUT1<br>2. Select the following group and subject.<br>Group : DLP<br>Subjects : S-G1-GAIN (Green)<br>S-B1-GAIN (Blue) | 1. Adjust S-G1-GAIN and S-B1-GAIN so that x-value should be 313 ± and y-value 329 ± 5. |

| No. | Adjusting point | Adjusting conditions | Adjusting procedure |
|---|---|---|---|
| 11 | **adjustment of videowhite balance** | 1. Feed the 50% gray pattern signal (NTSC, burst signal) to INPUT4.<br>2. Select the following group and subject.<br>Group : DLPV<br>Subjects: V-R1-GAIN (Red)<br>V-B1-GAIN (Blue) | 1. Adjust V-R1-GAIN and V-B1-GAIN so that x-value should be 290 ± 3 and y-value should be 310 ± 3. |
| 12 | **Adjustment of DTV white balance** | 1. Feed the 50% gray pattern signal (480i, color difference signal) to INPUT1.<br>2. Select the following group and subject.<br>Group : DLPV<br>Subjects : C-R1-GAIN(Red)<br>C-B1-GAIN(Blue) | 1. Adjust C-R1-GAIN and C-B1-GAIN so that x-value should be 290 ± 3 and y-value should be 310 ± 3. |
| 13 | **Factory settings** | 1. Select the following group and subject.<br>Group : SSS<br>Subject : S4 (North America)<br>S3 (Europe/Asia/Australia)<br>S5 (Japan) | 1. Make the following settings.<br>PH50XU : S4 (to north America)<br>PH50X : S5 (to Japan)<br>Other : S3 (to Europe/Asia/Australia) |

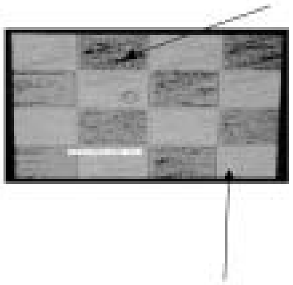
for reference / setting

| | OSD language | Video-set up level |
|---|---|---|
| S3 | English | 0IRE |
| S4 | English | 7.5IRE |
| S5 | Japanese | 0IRE |

| No. | Adjusting point | Adjusting conditions | Adjusting procedure |
|---|---|---|---|
| 14 | **Lens shift position** | | 1. Move lens shift position<br>Vertical : Top position<br>Horizontal: Center |
| 15 | **Turn off the power** | | |

## PC I/F adjustment method

(Note)
Since the PC I/F unit is initialized with S1, do not carry out S1. The PC I/F unit is already adjusted.
When the PC I/F unit must be adjusted, in such case as S1 is carried out by mistake, adjust it according to the followings

| No. | Adjusting point | Adjusting conditions | Adjusting procedure |
|---|---|---|---|
| 1 | **Initialization of EEPROM** | 1. Select the following group and subject.<br>Group : SSS<br>Subject : S1 | 1. Press S3602 to enter the process mode.<br>2. Execute the S2 command on the SSS menu.(By S1, all the contents of EEPROM are initialized.) |
| 2 | **RGB tone reproduction adjustment** | 1. Feed the window pattern signal that has 92% (0.64Vbw) and 0% signals (XGA/60Hz) to input 1<br>2. Select the following group and subject.<br>Group : A/D<br>Subjects : AD-AUTO<br>* When you can not prepare 92% signal<br>1. Feed the window pattern signal that has 100% (0.7Vbw) and 0% signals. (XGA/60Hz) to input 1<br>* "MUTE" key will be change to the factory gamma | 1. After signal input, select AD-AUTO for automatic adjustment.<br>1. Select the following group and subject.<br>Group : A/D<br>Subjects : G-BRIGHT<br>2. Make adjustment so that some bits should be missing in black area of the picture.<br><br>3. Select the following group and subject.<br>Group : A/D<br>Subjects : G-D<br>4. Make adjustment so that some bits should be missing in white area of the picture.<br>5. Select the following subject.<br>Subjects : R-BRIGHT<br>6. Make adjustment so that some bits should be missing in black area of the picture.<br>7. Select the following subject.<br>Subjects : R-D<br>8. Make adjustment so that some bits should be missing in white area of the picture.<br>9. Select the following subject.<br>Subjects : B-BRIGHT<br>10. Make adjustment so that some bits should be missing in black area of the picture.<br>11. Select the following subject.<br>Subjects : B-D<br>12. Make adjustment so that some bits should be missing in white area of the picture. |

## Special 232c command for factory

how to write MAC address (Write) Send the following 232c commands in sequence

1.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| _ | L | M | A | 0 | 0 | *1 | *2 |

+ "enter" key

*1 the first byte
*2 the second byte

wait "OK"

2.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| _ | L | M | A | 1 | 0 | *3 | *4 |

+ "enter" key

*3 the third byte
*4 the fourth byte

wait "OK"

3.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| _ | L | M | A | 2 | 0 | *5 | *6 |

+ "enter" key

*5 the fifth byte
*6 the sixth byte

wait "OK"

4.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| _ | L | M | A | 3 | 0 | *7 | *8 |

+ "enter" key

*7 the seventh byte
*8 the eighth

wait "OK"

5.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| _ | L | M | A | 4 | 0 | *9 | *10 |

+ "enter" key

*9 the ninth byte
*10 the 10th byte

wait "OK"

6.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| _ | L | M | A | 5 | 0 | *11 | *12 |

+ "enter" key

*11 the 11th byte
*12 the 12th byte

(Read) Send the following 232c commands

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| _ | L | M | A | | | | 1 |

+ "enter" key

MAC address will be appear on screen

how to write serial number (Write) Send the following 232c commands in sequence

1.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| S | N | _ | 1 | 1 | 2 | 3 | 4 |

+ "enter" key

wait "OK"

2.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| S | N | _ | 2 | 5 | 6 | 7 | 8 |

+ "enter" key

wait "OK"

3.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *1 | *2 | *3 | *4 | *5 | *6 | *7 | *8 | *9 | *10 | *11 | *12 |

+ "enter" key

*1~*12/serial number

4.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *1 | *2 | *3 | *4 | *5 | *6 | *7 | *8 | *9 | *10 | *11 | *12 |

+ "enter" key

same data as step3

wait "OK"

(NOTE)
When number of characters of the serial number is shorter than twelve characters, please use space character " ".
for example
serial number is "1311163"

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | 3 | 1 | 1 | 1 | 6 | 3 |

+ "enter" key

serial number is "412311112"

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 4 | 1 | 2 | 3 | 1 | 1 | 1 | 1 | 2 |

+ "enter" key

(Read) Send the following 232c commands

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| S | N | R | D | | | | 1 |

+ "enter" key

serial number will be appear on screen

how to check projector status (Read) Send the following 232c commands

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| T | F | C | K | | | | 1 |

+ "enter" key

serial number will be appear on screen

**How to enter Service Mode**
Select the group"Option2"by user menu and then select "service Mode".
Enter the password "9303"

**How to adjust in service mode**

- Select the group to adjust with the DOWN key or the UP key, and enter the adjustment item with the ENTER key on the remote control or key pad.
- Select the adjustment item with the DOWN key or the UP key.
- Use the LEFT key or the RIGHT key for adjustment.
- To return from the adjustment item to the adjustment group, use the UNDO key or the MENU key.

**note**

- In service mode, user adjustment value will be changed to default value (Picture/CMS). When you exit from service mode, adjustment value will change to user adjustment value.
- In service mode, the following functions will be canceled.
  AV mute / sound mute / freeze / enlarge / PinP
- "standby" button on a remote controller and a operation pad is invalid in the service mode.
  If you would like to turn off the power, please exit from service mode.

adjustment of white balance
Adjustment of RGB PC
white balance

1. Feed a RGB PC signal to input1
2. Select the group "DLP"
   PH50X will change to input1/RGB mode automatically

| group | Subject | initial value | effective range | adjustment | source/mode |
|---|---|---|---|---|---|
| DLP | R1-BLK | 0 | ±20 | brightness of red | INPUT1 / RGB |
| | R1-GAIN | 0 | ±20 | contrast of red | INPUT1 / RGB |
| | G1-BLK | 0 | ±20 | brightness of green | INPUT1 / RGB |
| | G1-GAIN | 0 | ±20 | contrast of green | INPUT1 / RGB |
| | B1-BLK | 0 | ±20 | brightness of blue | INPUT1 / RGB |
| | B1-GAIN | 0 | ±20 | contrast of blue | INPUT1 / RGB |

adjustment of video
white balance

1. Feed a video signal
2. Select the group "DLPV"
   PH50X will change to input4 mode automatically

| group | Subject | initial value | effective range | adjustment | source/mode |
|---|---|---|---|---|---|
| DLPV | V-R1-BLK | 0 | ±20 | brightness of red | INPUT4 / video |
| | V-R1-GAIN | 0 | ±20 | contrast of red | INPUT4 / video |
| | V-G1-BLK | 0 | ±20 | brightness of green | INPUT4 / video |
| | V-G1-GAIN | 0 | ±20 | contrast of green | INPUT4 / video |
| | V-B1-BLK | 0 | ±20 | brightness of blue | INPUT4 / video |
| | V-B1-GAIN | 0 | ±20 | contrast of blue | INPUT4 / video |

adjustment of DTV
white balance

1. Feed a component signal to input1
2. Select the group "DLPV"
   PH50X will change to input1/component mode automatically

| group | Subject | initial value | effective range | adjustment | source/mode |
|---|---|---|---|---|---|
| DLPV | C-R1-GAIN | 0 | ±20 | contrast of red | INPUT1 / component |
| | C-G1-GAIN | 0 | ±20 | contrast of green | INPUT1 / component |
| | C-B1-GAIN | 0 | ±20 | contrast of blue | INPUT1 / component |

(memo) The adjustment value of the brightness is common to video.

adjustment of video

1. Feed a video signal
2. Select the group "VIDEO"
   PH50X will change to input4 mode automatically

adjustment of VIDEO
picture

adjustment of VIDEO
color

setting of VIDEO gain control

adjustment of delay
between chroma and luminance

adjustment of VIDEO
horizontal position

adjustment of VIDEO
low pass filter

| group | Subject | initial value | effective range | adjustment | source/mode |
|---|---|---|---|---|---|
| VIDEO | PICTURE | 0 | ±60 | contrast | INPUT4 / video |
| | BRIGHT | 0 | ±60 | brightness | INPUT4 / video |
| | TINT | 0 | ±120 | tint(effected in NTSC only) | INPUT4 / video |
| | N-COLOR | 0 | ±120 | color saturation | INPUT4 / video |
| | AGC-CNT | 0 | 0-1 | auto gain control<br>0 : AGC On<br>1 : AGC Off | INPUT4 / video |
| | DLY | 0 | ±5 | | INPUT4 / video |
| | H-CENTER | 0 | ±10 | | INPUT4 / video |
| | FILTER | 0 | ±3 | filter gain | INPUT4 / video |

others

| | group | Subject | initial value | effective range | adjustment | source/mode |
|---|---|---|---|---|---|---|
| switch of component low pass filter | VIDEO | COMP-FILTER | 0 | 0-1 | 0 : filter off, 1 : filter on | INPUT1 / component |
| switch of RGB low pass filter | | RGB-FILTER | 0 | 0-1 | 0 : filter off, 1 : filter on | INPUT1 / RGB |
| switch of audio delay of internal speaker | | A-DELAY | 0 | 0-1 | 0 : delay on, 1 : delay off | INPUT4 / video |

initialization of adjustment value

RESET - Select this item and push ENTER key.
Value inside each item of "DLP","DLPV" and "VIDEO" is returned to the initial value with RESET.

internal test pattern

| group | Subject | initial value | effective range | signal |
|---|---|---|---|---|
| PATTERN | RGB | 1 | 1-8 | raster signal |
| | RGB[50] | 1 | 1-8 | 50% raster signal |
| | CROSS | 1 | 1-9 | cross hatch |
| | FOCUS | 1 | 1-2 | checkered signal |
| | STEP | 1 | 1-2 | 8step/16step |
| | COLOR | | | color bar |
| | CHR | 1 | 1-4 | oblique line and vertical line |

firmware version

| group | Subject | version |
|---|---|---|
| FIRMWARE | SUB | *.** |
| | MAIN-LOADER | *.** |
| | MAIN-ZIMAGE | *.** |
| | MAIN-MTD | *.** |
| | MAIN-JFFS | *.** |

network setting

| group | Subject | address |
|---|---|---|
| NETWORK | IP ADDRESS | 192.168.150.002 |
| | MAC ADDRESS | **:**:**:**:**:** |

exit from service mode

| group |
|---|
| EXIT |

- Select this item and push ENTER key.

## Failure mode when the lamp does not light up even when powered on

1. Status of LED

- POWER does not light up.
  The sub CPU (IC3603) does not start. Check the peripheral circuits.

- POWER blinks in red.
  0.5-second interval: Fan error detection.
  (This unit detects the number of fan revolutions. When the fan is running more slowly than the preset lower speed limit, the power is shut down by the protection function even if the fan does not stop completely.)
  1-second interval: Bottom air filter cover (RCS) detection.
  2-second interval: Communication error between sub CPU (IC3603) and main CPU (IC8003).

- LAMP LED blinks in red.
  1-second interval: Lamp leaf switch detection.
  (The power is not turned on if the lamp cartridge is removed from the unit.)

2. Checking the status via RS232C serial communication
   Send"TFCK△△△1"+ENTER,"TABN△△△1" via 232C communication to check the status of the projector.

   Return value example of the normal unit

```
TFCK   1
[ RCS ] Close
[ Lamp1 Leaf ] Close
[ Lamp2 Leaf ] Close
[ Main-Sub ] Communication OK.
[ Fan ] Normal
      [ pwm Fan1] No error
      [ pwm Fan2] No error
      [ pwm Fan3] No error
      [ pwm Fan4] No error
      [ pwm Fan5] No error
      [ pwm Fan6] No error
      [ dac Fan0] No error
      [ dac Fan1] No error
[ Temperature ] Normal
[ Lamp1 Non Light ] Normal
[ Lamp2 Non Light ] Normal
[ Lamp Life1 ] Normal
[ Lamp Life2 ] Normal
OK
```

3. Others

- The lamp does not light up if the color wheel motor does not run.
- The lamp does not light up if the thermistor sensor is not connected (e.g. breaking of wire).
- The lamp does not light up when if a communication error occurs between IC3 and IC25 on the PC board.

4. Disabling of the sensors
   Caution: When the unit is returned to a user with the sensors disabled, the cabinet may be deformed by heat because the protection function does not work. After completion of inspection, be sure to restore the sensors to their original state.

- Temperature sensor
  Mount a resistor of 10 k_ between pins 1 and 2 of CN7205 and a resistor of 12 kΩ between pins 1 and 2 of CN7005 to turn on the power with the sensor detached. Since the unit is set to the sensor temperature fixed mode, the fan speed is fixed to low speed. After completion of inspection, be sure to remove the resistors.

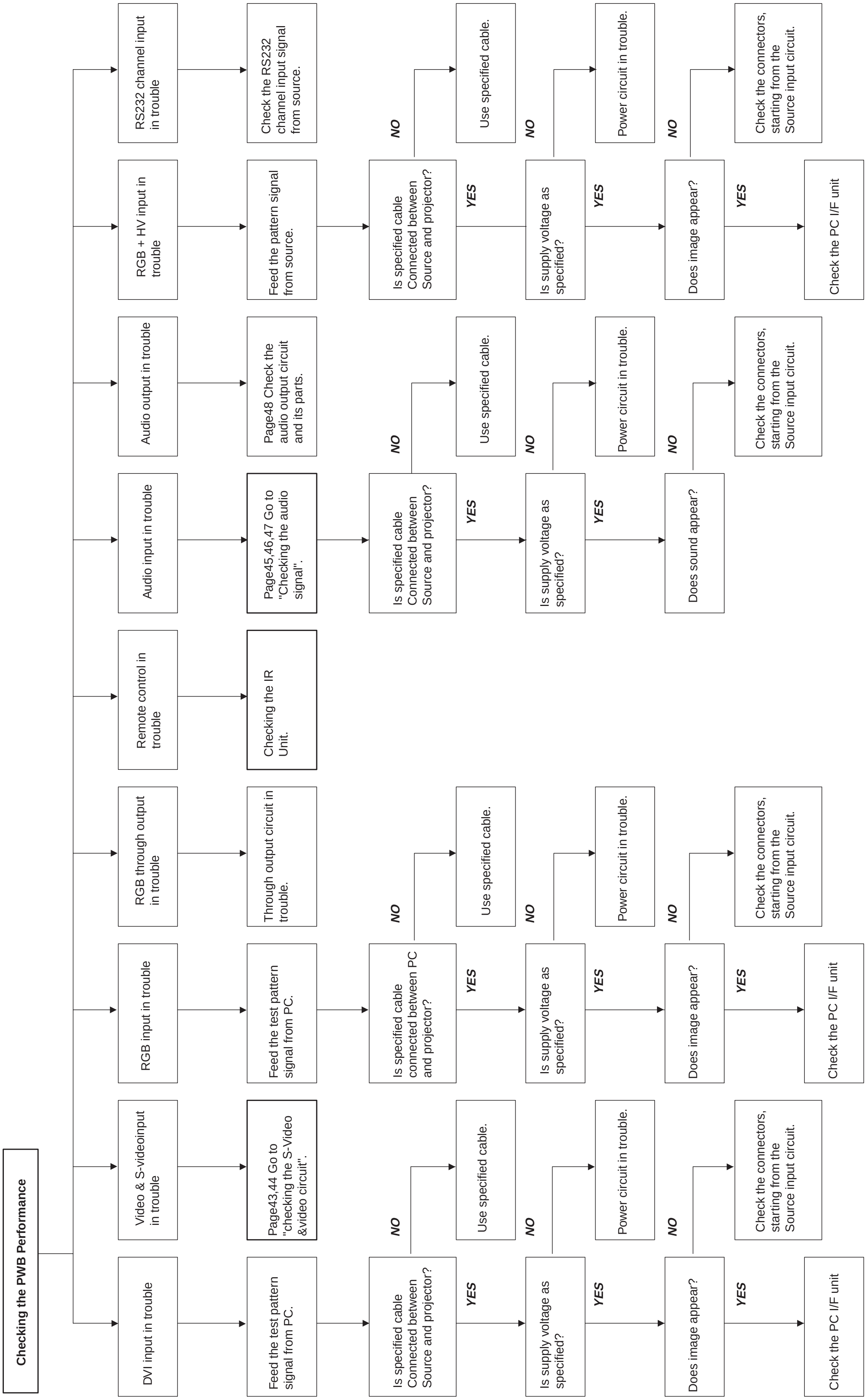
- Fan lock detection
  This unit detects the pulse of the fan. When checking the operation of the PWBs without running the fan, connect the pin C8 of IC3603 (on the pin C8 side of R3727) to GND with a jumper wire. Even if the fan does not run, the unit continues operation. Therefore the reliability of parts cannot be maintained. After completion of inspection, be sure to remove the jumper wire.

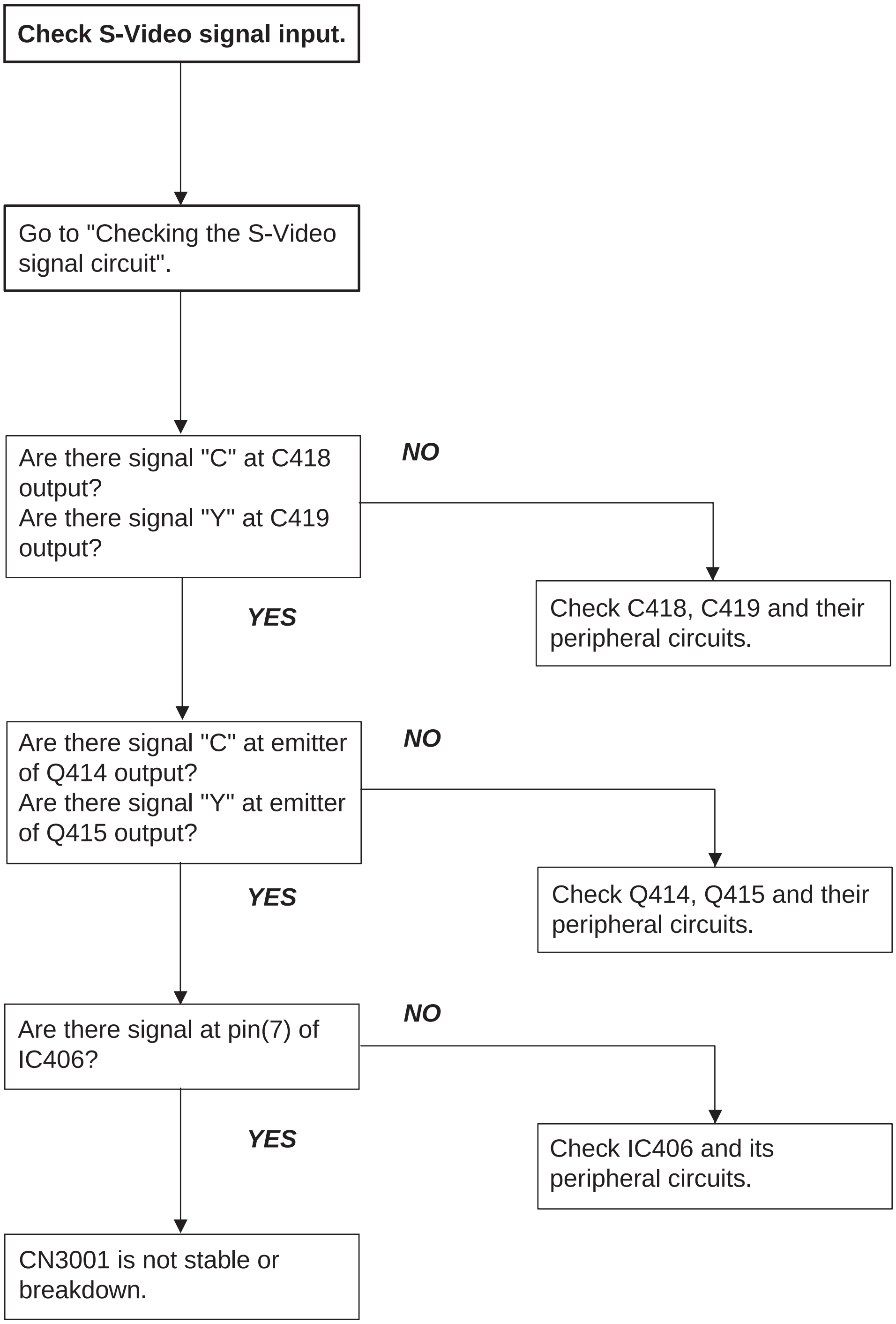
- Air filter cover detection
  Short-circuit between pins 1 and 2 of CN7001.
  Since the power turns on even if the filter cover is removed, the user may be injured with the fan. After completion of inspection, be sure to restore it to its original state.

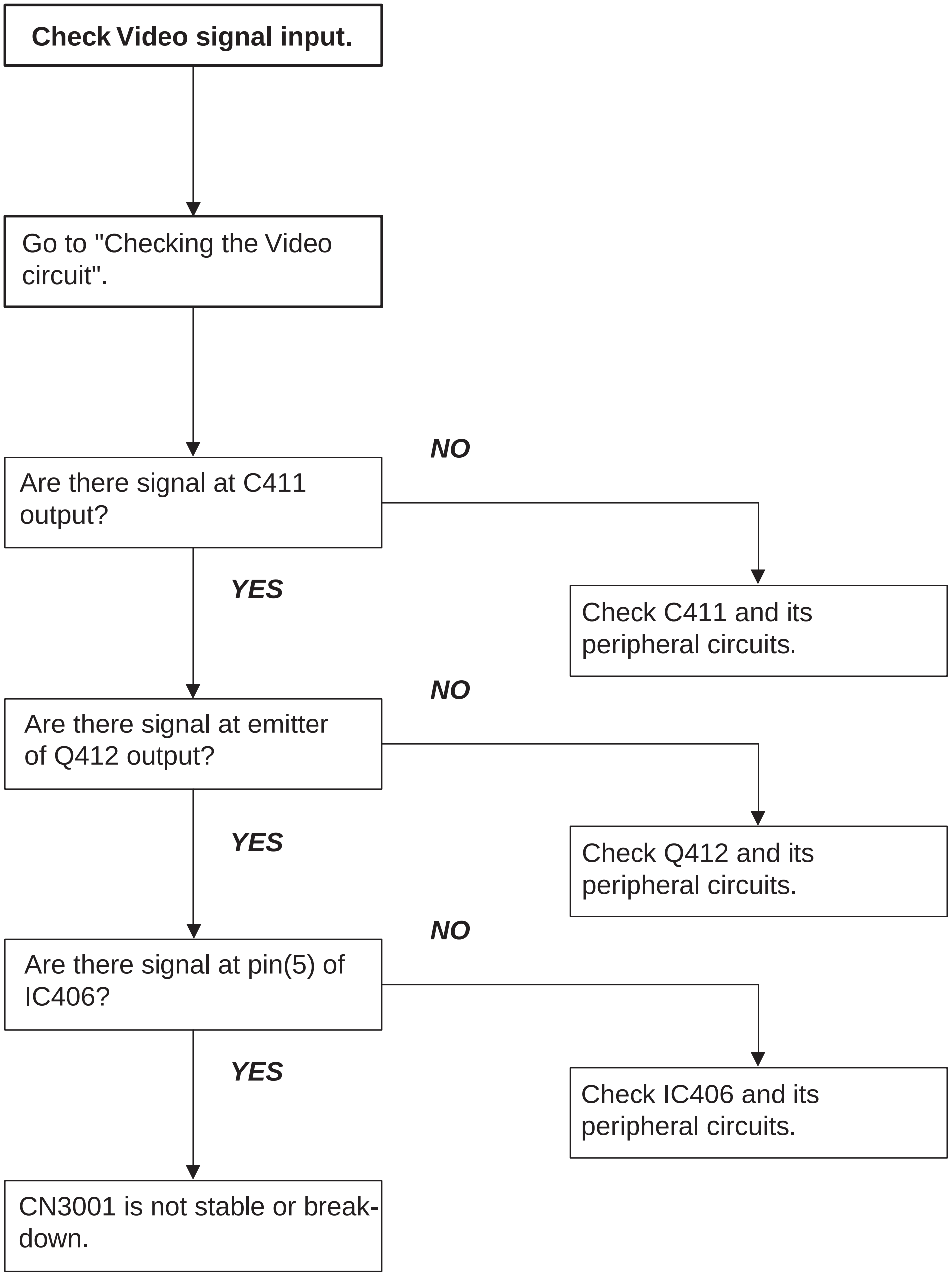
- Lamp cartridge detection
  This unit has two lamps. When turning on the lamp with one lamp cartridge removed, the cabinet may be deformed by heat. After completion of inspection, be sure to restore the lamp cartridge to its original state.
  Short-circuit between pins 1 and 2 of CN2801/CN2802.

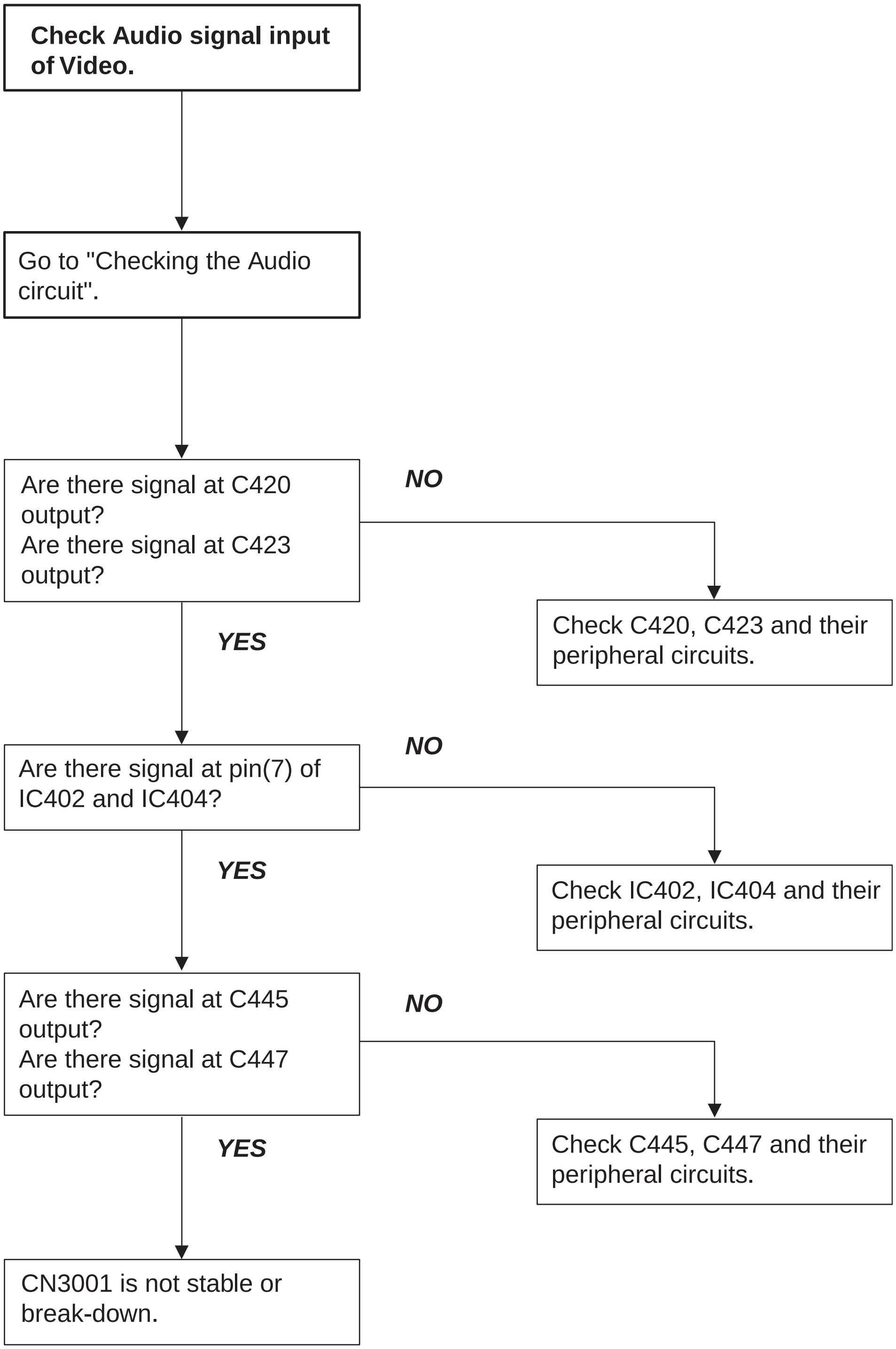
- Color wheel motor/Photosensor
  Cannot be disabled. Connect an extension jig.

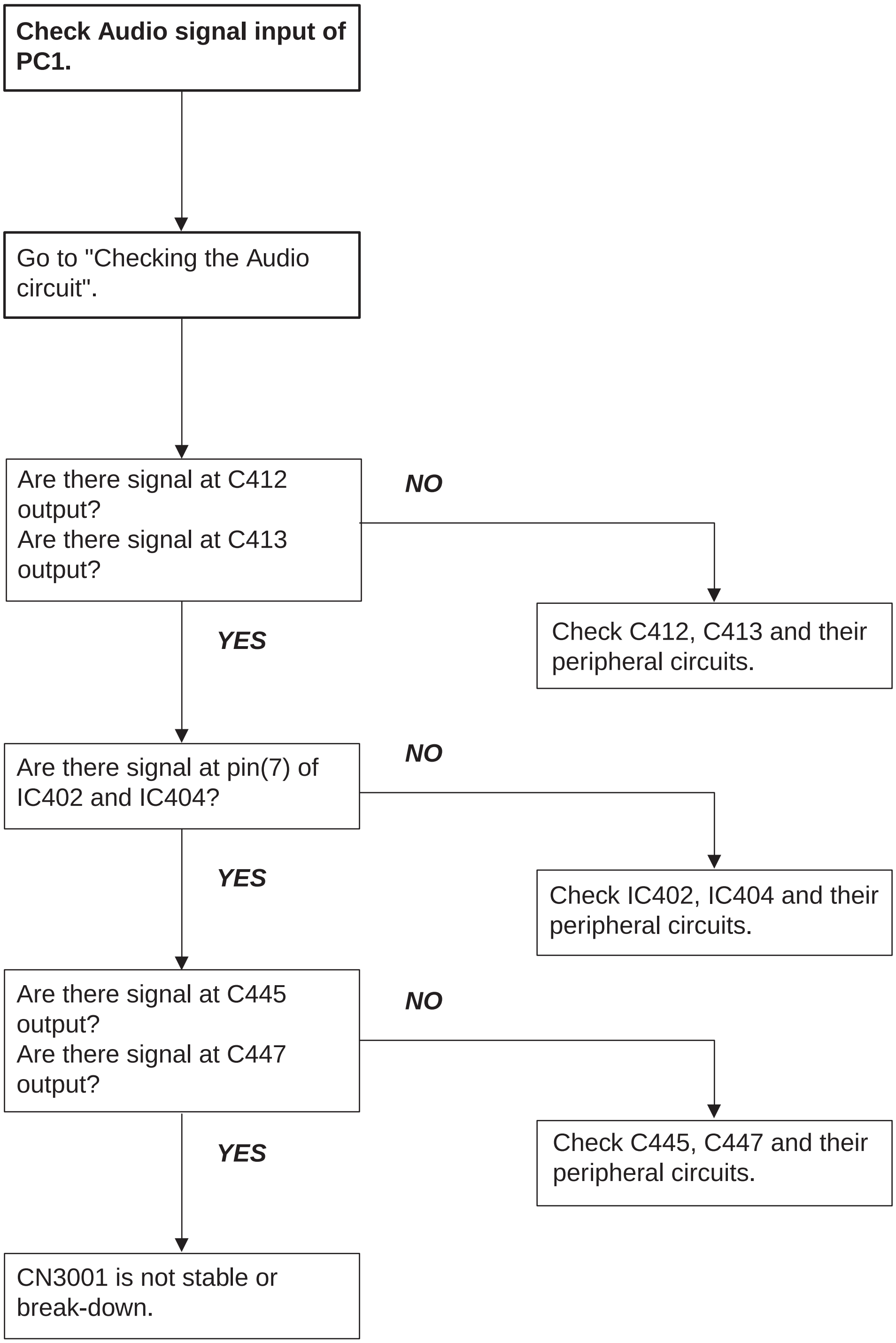
# TROUBLESHOOTING TABLE

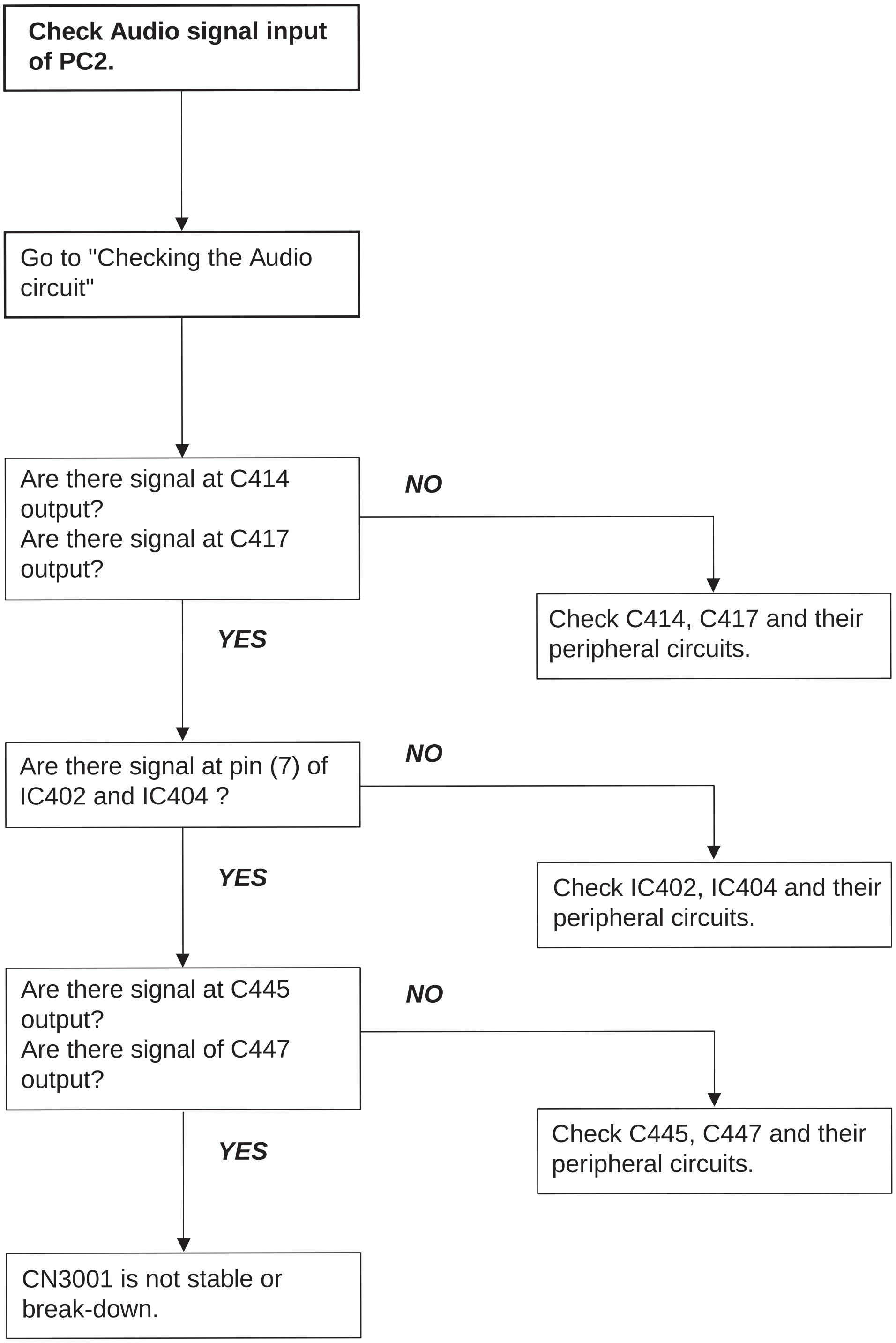

Checking the PWB Performance
DVI input in trouble
Feed the test pattern signal from PC.
Is specified cable Connected between Source and projector?
YES
NO
Use specified cable.
Is supply voltage as specified?
YES
NO
Power circuit in trouble.
Does image appear?
YES
NO
Check the connectors, starting from the Source input circuit.
Check the PC I/F unit
Video & S-videoinput in trouble
Page43,44 Go to "checking the S-Video &video circuit".
RGB input in trouble
Feed the test pattern signal from PC.
Is specified cable connected between PC and projector?
YES
NO
Use specified cable.
Is supply voltage as specified?
YES
NO
Power circuit in trouble.
Does image appear?
YES
NO
Check the connectors, starting from the Source input circuit.
Check the PC I/F unit
RGB through output in trouble
Through output circuit in trouble.
Remote control in trouble
Checking the IR Unit.
Audio input in trouble
Page45,46,47 Go to "Checking the audio signal".
Is specified cable Connected between Source and projector?
YES
NO
Use specified cable.
Is supply voltage as specified?
YES
NO
Power circuit in trouble.
Does sound appear?
NO
Check the connectors, starting from the Source input circuit.
Audio output in trouble
Page48 Check the audio output circuit and its parts.
RGB + HV input in trouble
Feed the pattern signal from source.
Is specified cable Connected between Source and projector?
YES
NO
Use specified cable.
Is supply voltage as specified?
YES
NO
Power circuit in trouble.
Does image appear?
YES
NO
Check the connectors, starting from the Source input circuit.
Check the PC I/F unit
RS232 channel input in trouble
Check the RS232 channel input signal from source.

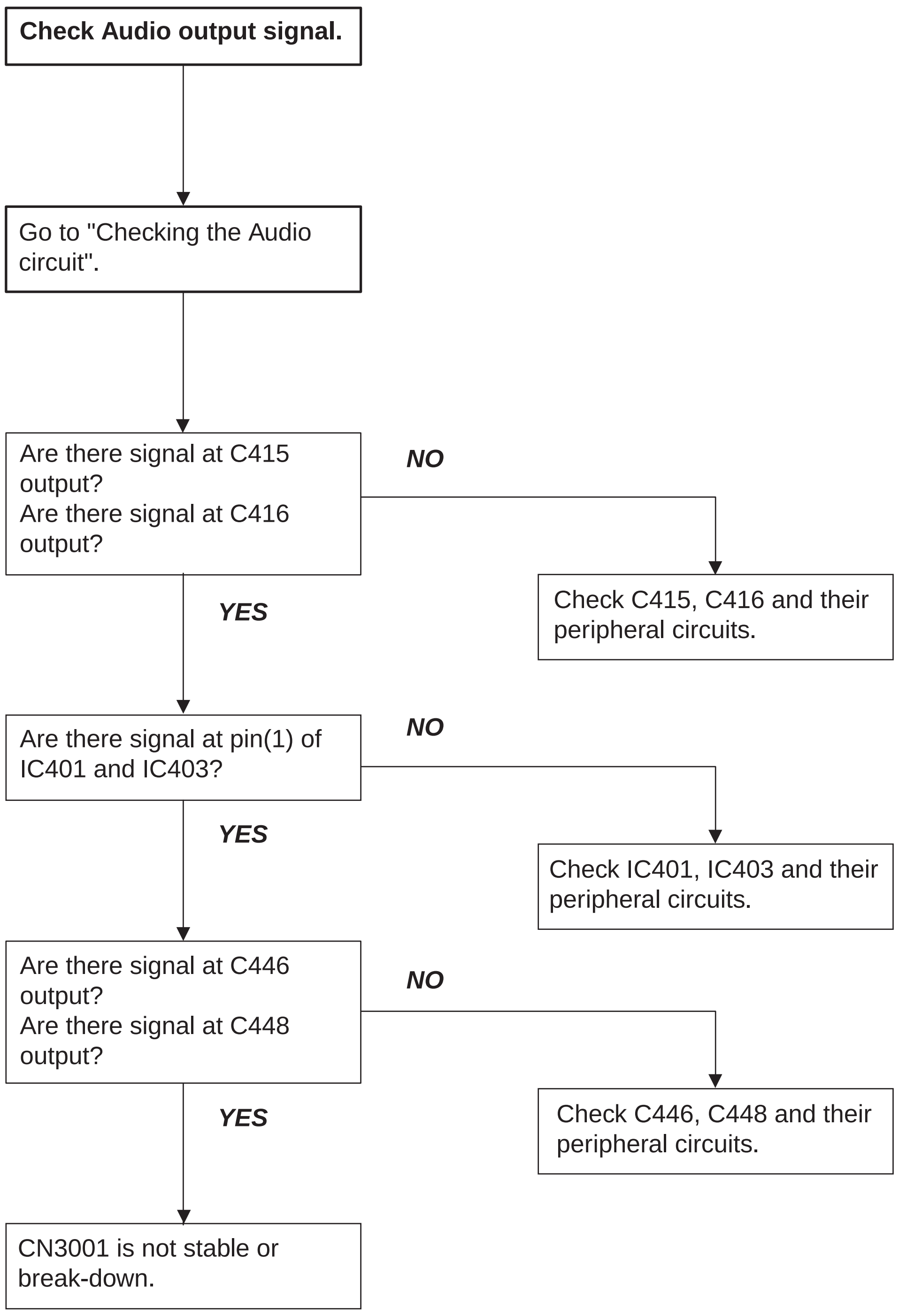

Check S-Video signal input.
Go to "Checking the S-Video signal circuit".
Are there signal "C" at C418 output? Are there signal "Y" at C419 output?
NO
Check C418, C419 and their peripheral circuits.
YES
Are there signal "C" at emitter of Q414 output? Are there signal "Y" at emitter of Q415 output?
NO
Check Q414, Q415 and their peripheral circuits.
YES
Are there signal at pin(7) of IC406?
NO
Check IC406 and its peripheral circuits.
YES
CN3001 is not stable or breakdown.

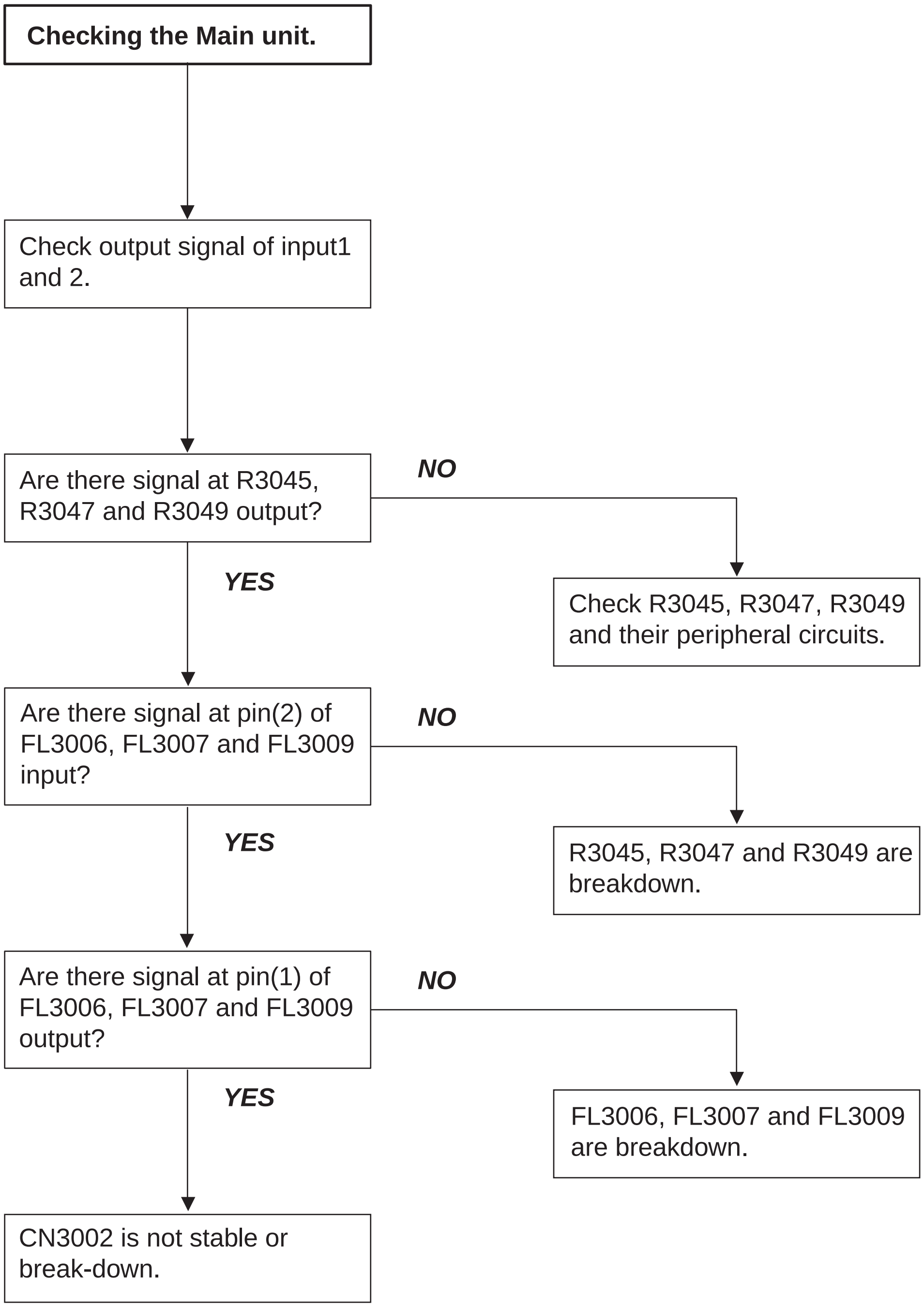

Check Video signal input.
Go to "Checking the Video circuit".
Are there signal at C411 output?
NO
Check C411 and its peripheral circuits.
YES
Are there signal at emitter of Q412 output?
NO
Check Q412 and its peripheral circuits.
YES
Are there signal at pin(5) of IC406?
NO
Check IC406 and its peripheral circuits.
YES
CN3001 is not stable or break-down.

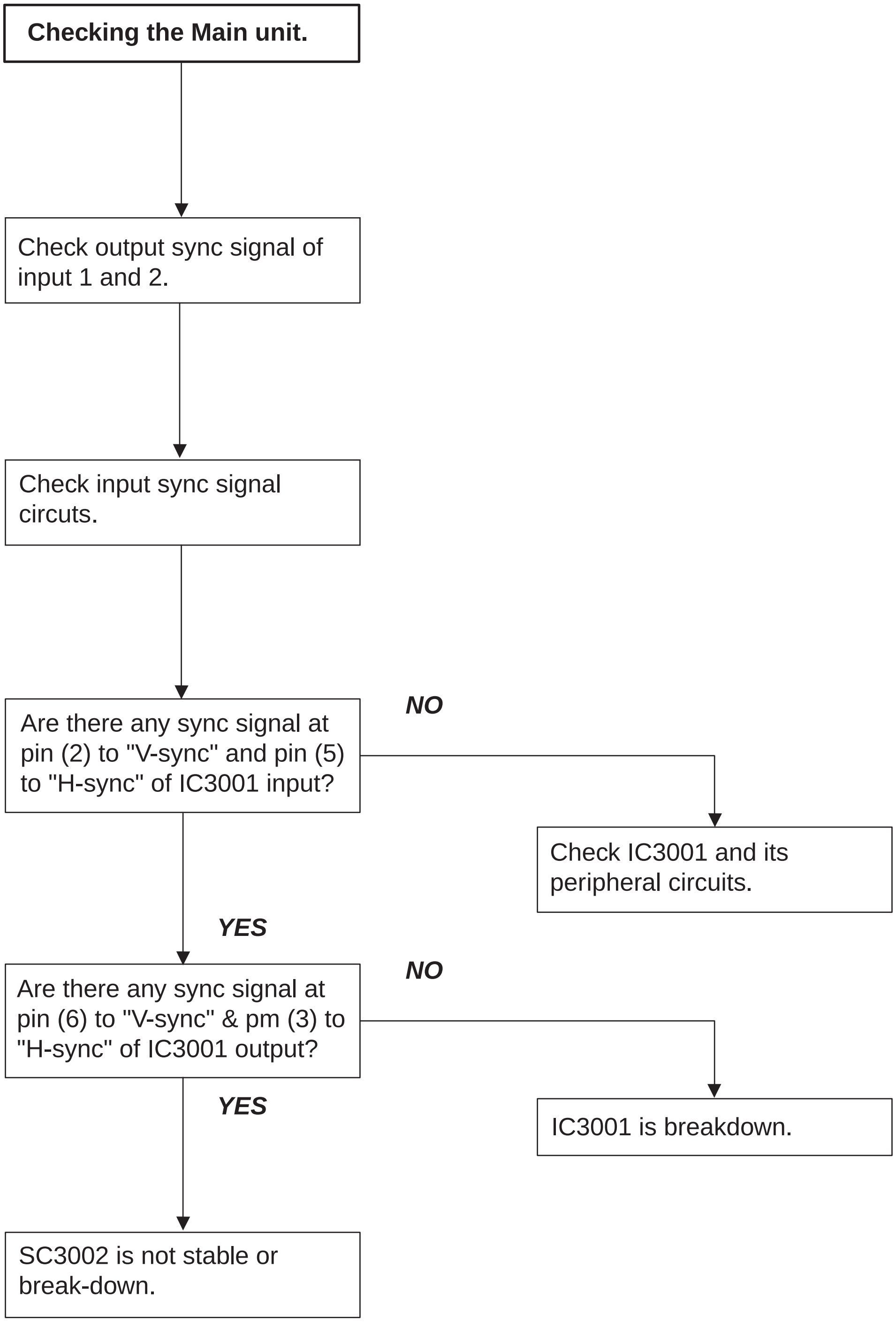

Check Audio signal input of Video.
Go to "Checking the Audio circuit".
Are there signal at C420 output? Are there signal at C423 output?
NO
Check C420, C423 and their peripheral circuits.
YES
Are there signal at pin(7) of IC402 and IC404?
NO
Check IC402, IC404 and their peripheral circuits.
YES
Are there signal at C445 output? Are there signal at C447 output?
NO
Check C445, C447 and their peripheral circuits.
YES
CN3001 is not stable or break-down.

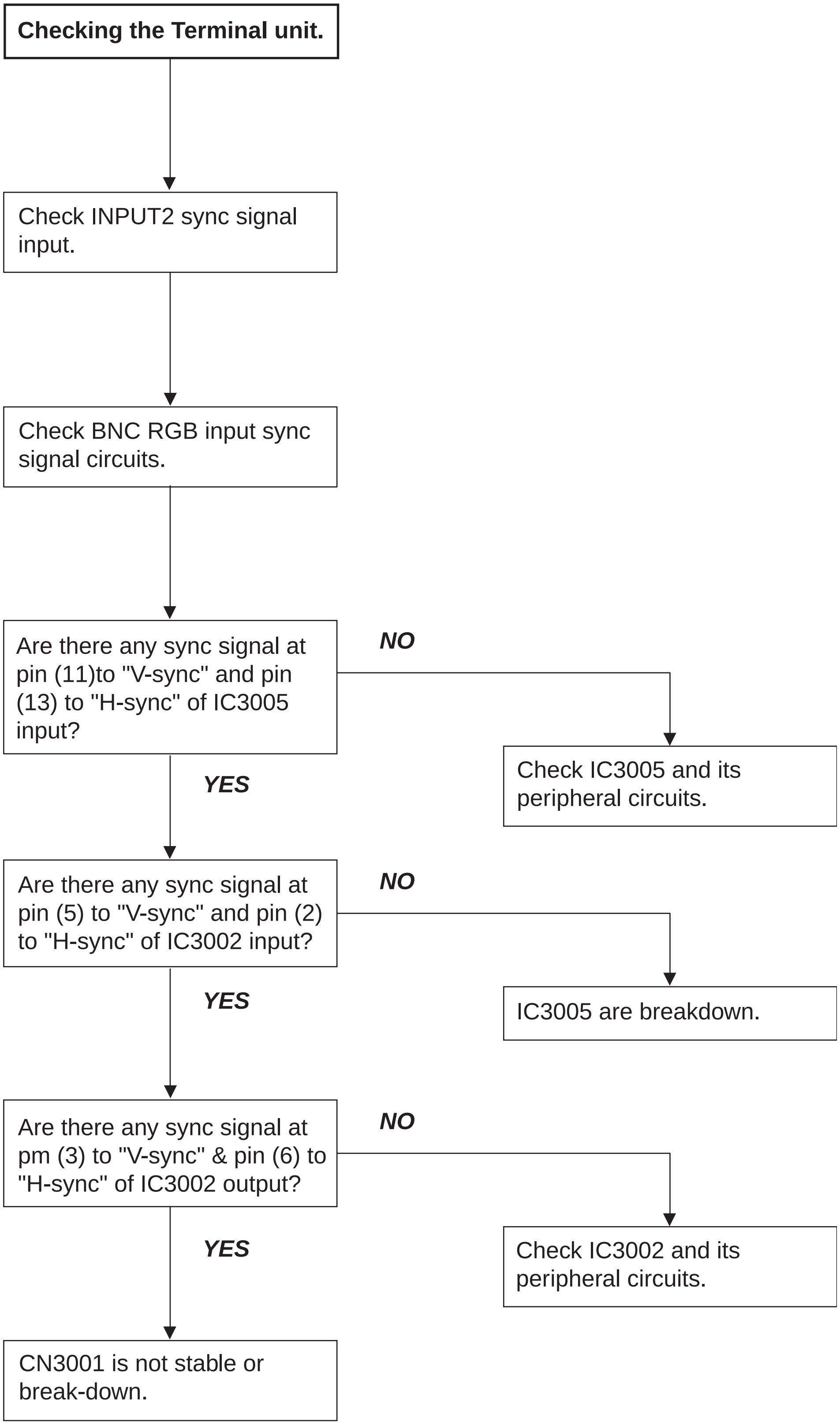

Check Audio signal input of PC1.
Go to "Checking the Audio circuit".
Are there signal at C412 output?
Are there signal at C413 output?
NO
Check C412, C413 and their peripheral circuits.
YES
Are there signal at pin(7) of IC402 and IC404?
NO
Check IC402, IC404 and their peripheral circuits.
YES
Are there signal at C445 output?
Are there signal at C447 output?
NO
Check C445, C447 and their peripheral circuits.
YES
CN3001 is not stable or break-down.

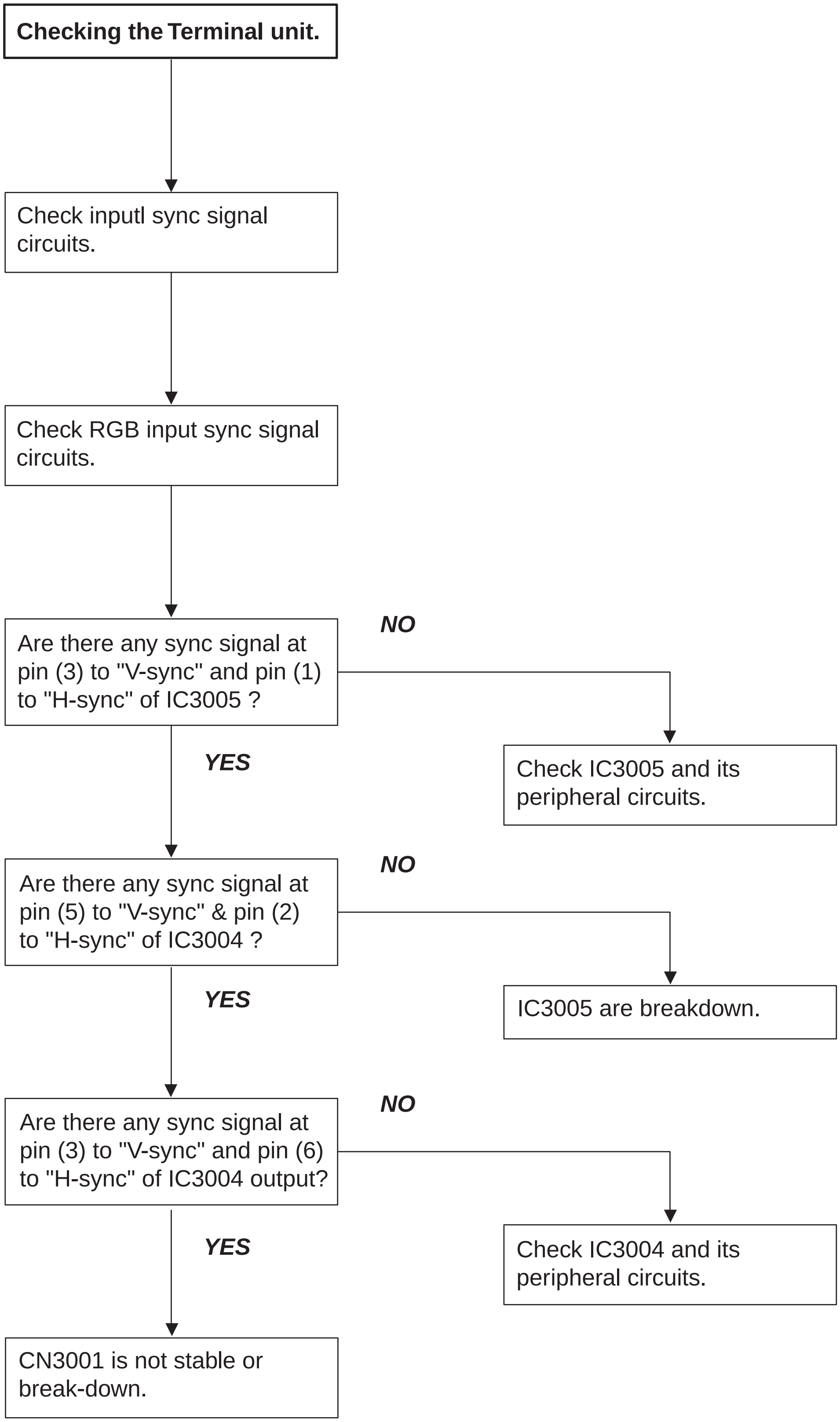

Check Audio signal input of PC2.
Go to "Checking the Audio circuit"
Are there signal at C414 output?
Are there signal at C417 output?
NO
Check C414, C417 and their peripheral circuits.
YES
Are there signal at pin (7) of IC402 and IC404 ?
NO
Check IC402, IC404 and their peripheral circuits.
YES
Are there signal at C445 output?
Are there signal of C447 output?
NO
Check C445, C447 and their peripheral circuits.
YES
CN3001 is not stable or break-down.

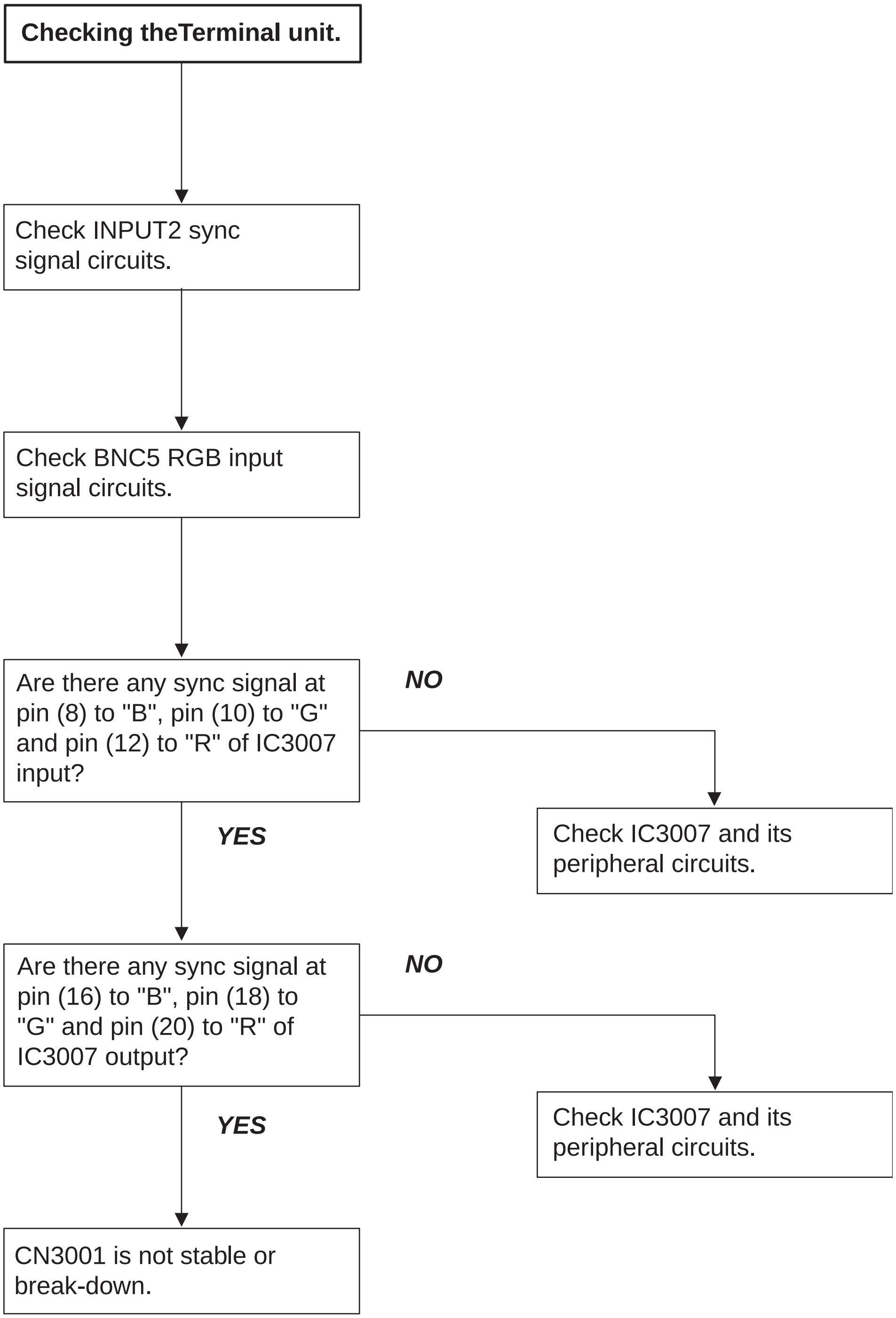

Check Audio output signal.
Go to "Checking the Audio circuit".
Are there signal at C415 output? Are there signal at C416 output?
NO
Check C415, C416 and their peripheral circuits.
YES
Are there signal at pin(1) of IC401 and IC403?
NO
Check IC401, IC403 and their peripheral circuits.
YES
Are there signal at C446 output? Are there signal at C448 output?
NO
Check C446, C448 and their peripheral circuits.
YES
CN3001 is not stable or break-down.

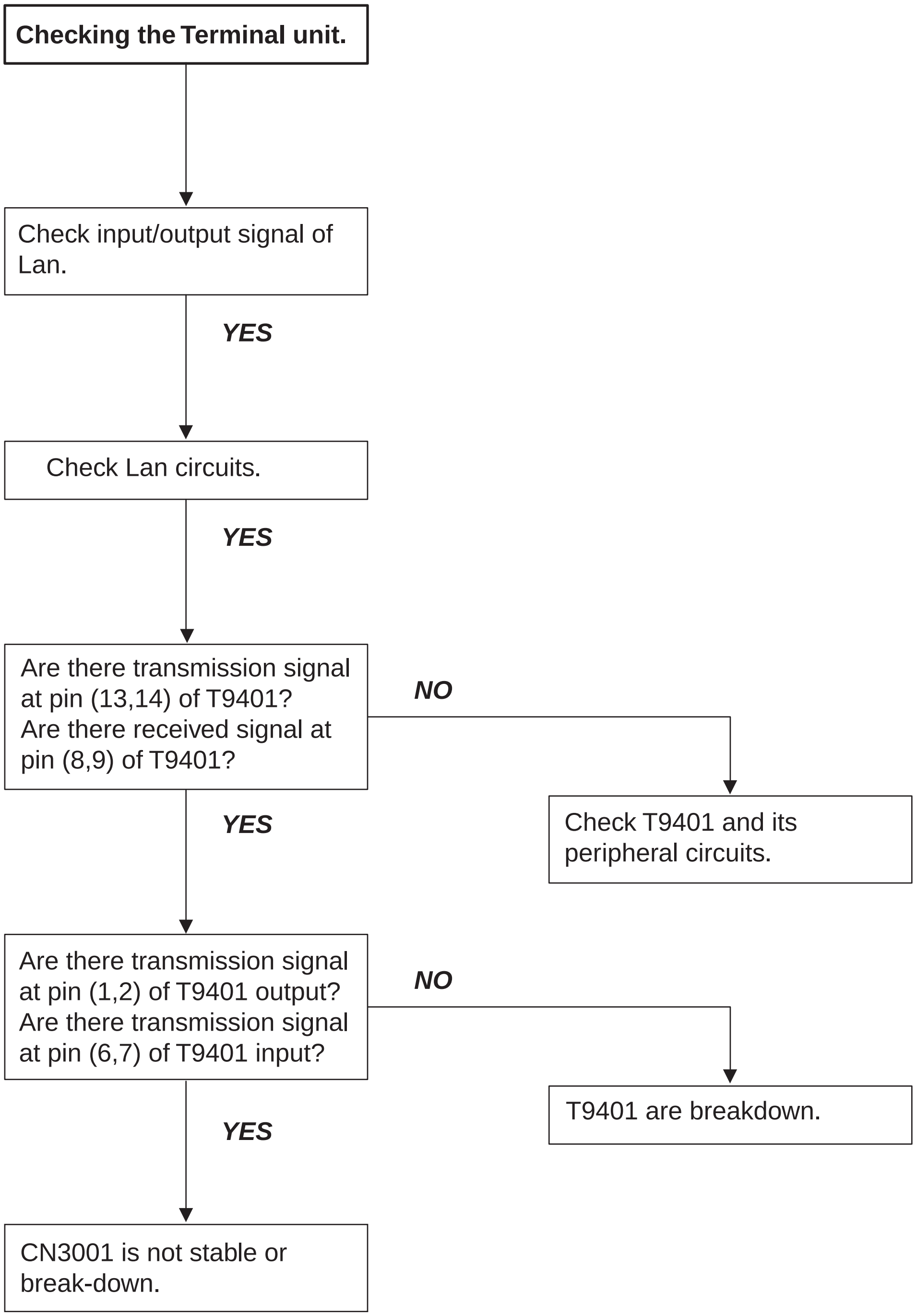

Checking the Main unit.
Check output signal of input1 and 2.
Are there signal at R3045, R3047 and R3049 output?
NO
Check R3045, R3047, R3049 and their peripheral circuits.
YES
Are there signal at pin(2) of FL3006, FL3007 and FL3009 input?
NO
R3045, R3047 and R3049 are breakdown.
YES
Are there signal at pin(1) of FL3006, FL3007 and FL3009 output?
NO
FL3006, FL3007 and FL3009 are breakdown.
YES
CN3002 is not stable or break-down.

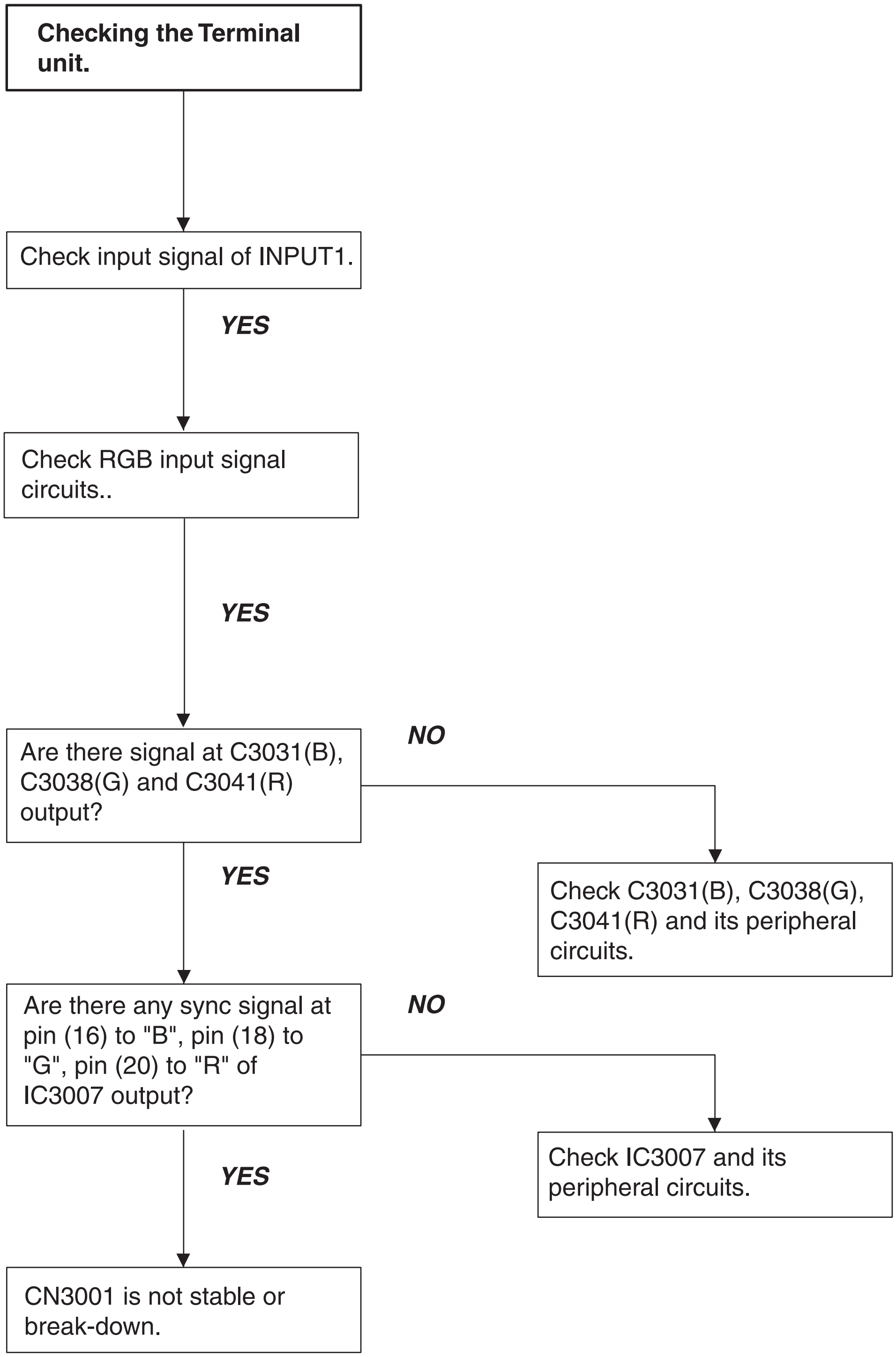

Checking the Main unit.
Check output sync signal of input 1 and 2.
Check input sync signal circuts.
Are there any sync signal at pin (2) to "V-sync" and pin (5) to "H-sync" of IC3001 input?
NO
Check IC3001 and its peripheral circuits.
YES
Are there any sync signal at pin (6) to "V-sync" & pm (3) to "H-sync" of IC3001 output?
NO
IC3001 is breakdown.
YES
SC3002 is not stable or break-down.

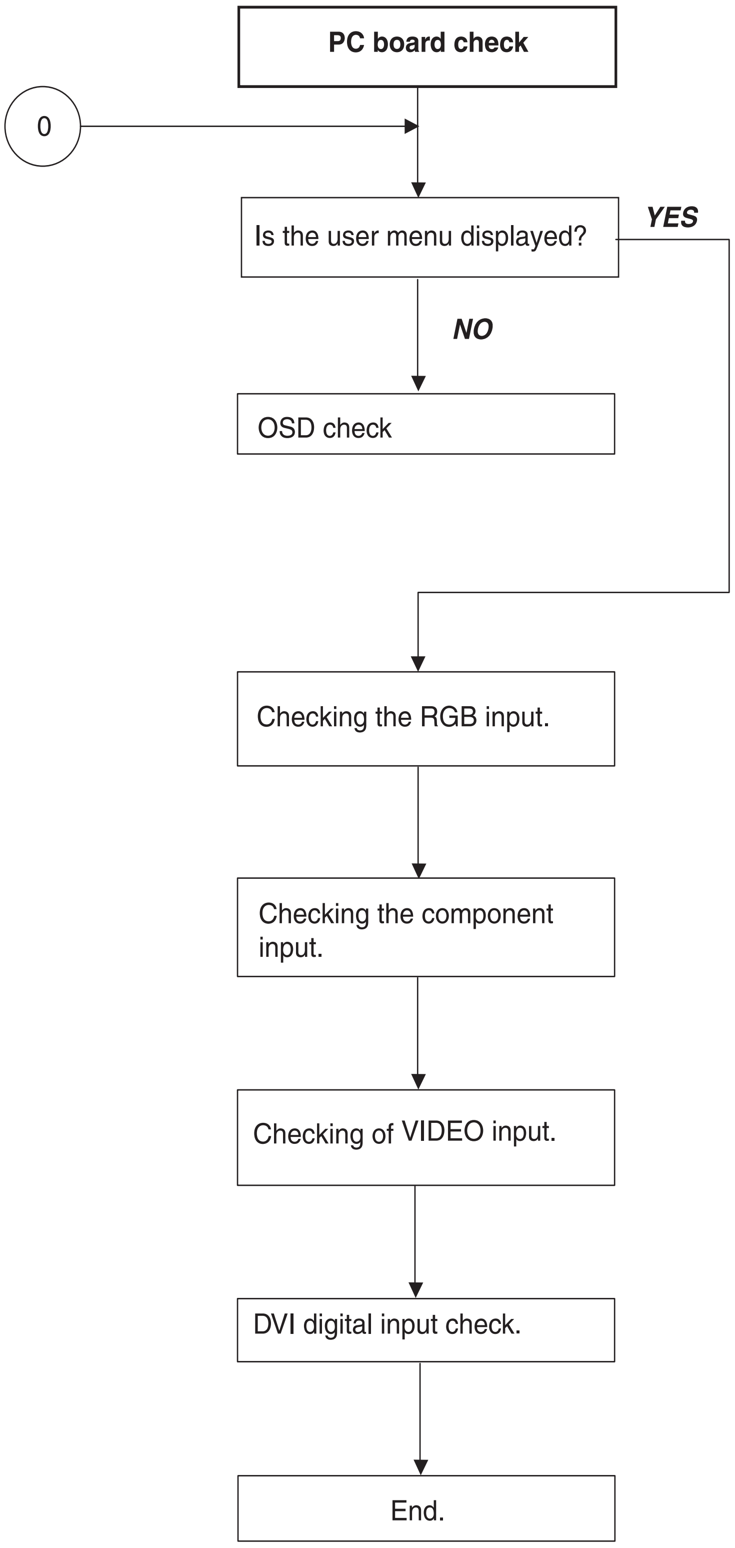

Checking the Terminal unit.
Check INPUT2 sync signal input.
Check BNC RGB input sync signal circuits.
Are there any sync signal at pin (11)to "V-sync" and pin (13) to "H-sync" of IC3005 input?
NO
Check IC3005 and its peripheral circuits.
YES
Are there any sync signal at pin (5) to "V-sync" and pin (2) to "H-sync" of IC3002 input?
NO
IC3005 are breakdown.
YES
Are there any sync signal at pm (3) to "V-sync" & pin (6) to "H-sync" of IC3002 output?
NO
Check IC3002 and its peripheral circuits.
YES
CN3001 is not stable or break-down.

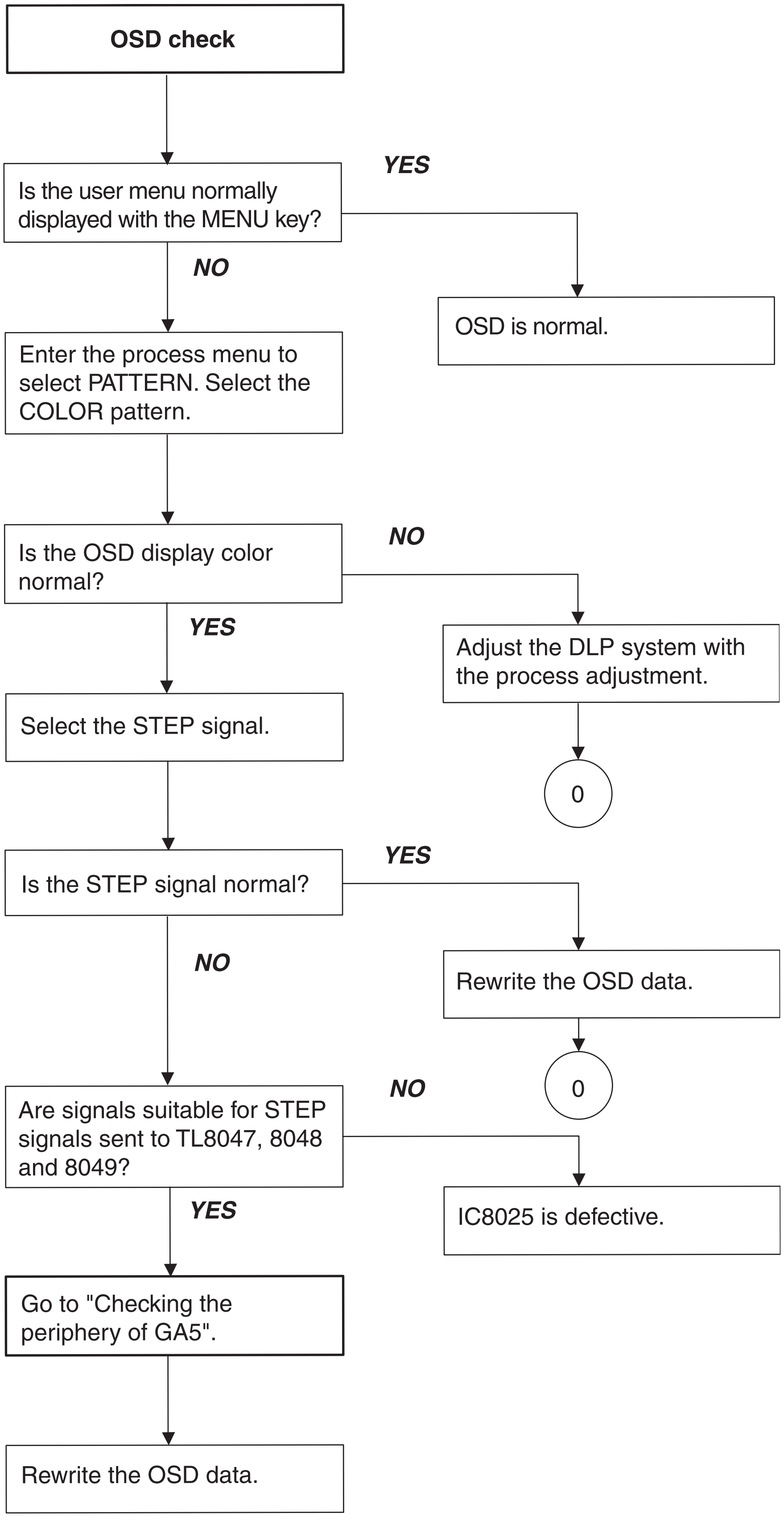

Checking the Terminal unit.
Check inputl sync signal circuits.
Check RGB input sync signal circuits.
Are there any sync signal at pin (3) to "V-sync" and pin (1) to "H-sync" of IC3005 ?
NO
Check IC3005 and its peripheral circuits.
YES
Are there any sync signal at pin (5) to "V-sync" & pin (2) to "H-sync" of IC3004 ?
NO
IC3005 are breakdown.
YES
Are there any sync signal at pin (3) to "V-sync" and pin (6) to "H-sync" of IC3004 output?
NO
Check IC3004 and its peripheral circuits.
YES
CN3001 is not stable or break-down.

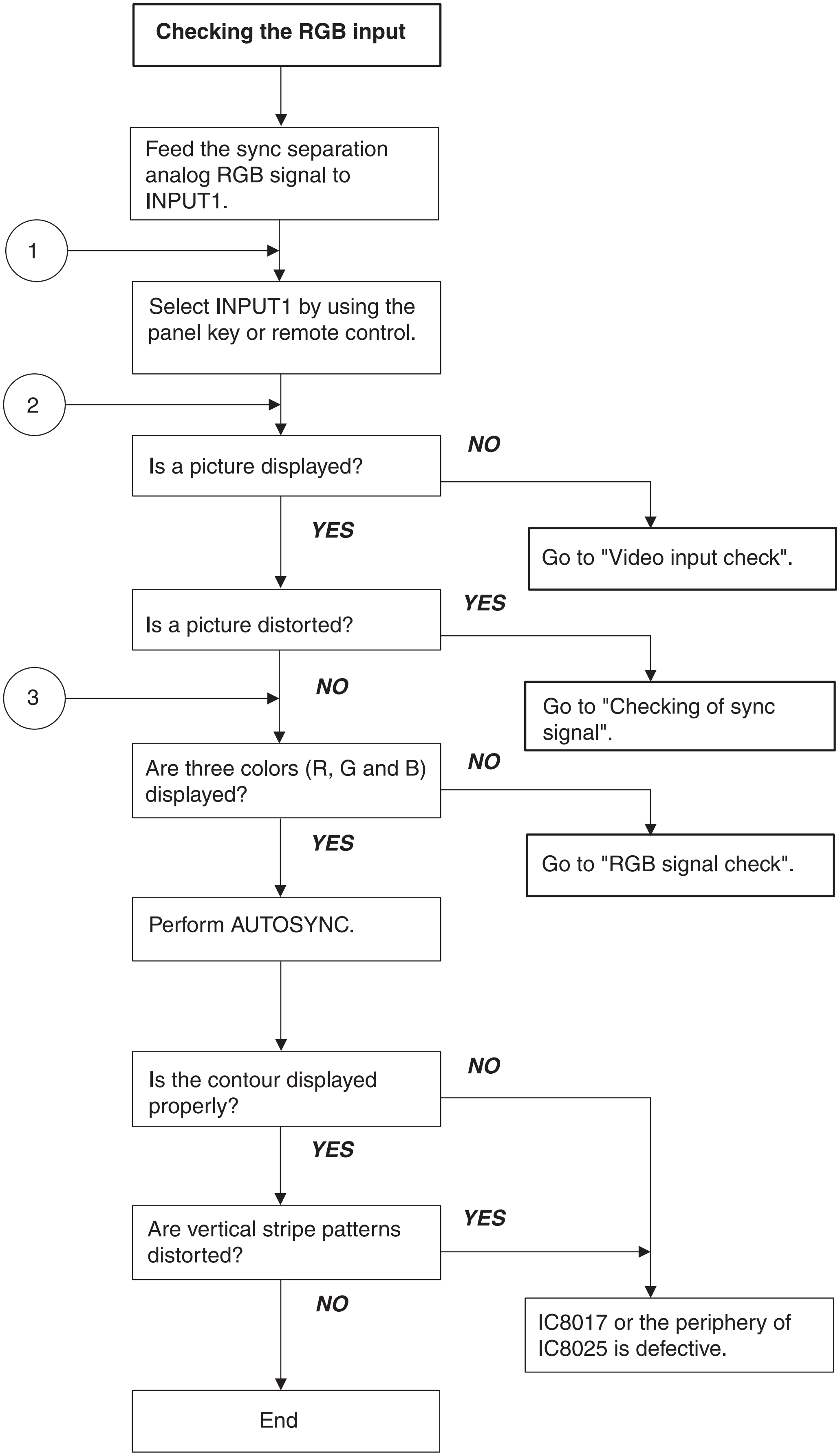

Checking theTerminal unit.
Check INPUT2 sync signal circuits.
Check BNC5 RGB input signal circuits.
Are there any sync signal at pin (8) to "B", pin (10) to "G" and pin (12) to "R" of IC3007 input?
NO
Check IC3007 and its peripheral circuits.
YES
Are there any sync signal at pin (16) to "B", pin (18) to "G" and pin (20) to "R" of IC3007 output?
NO
Check IC3007 and its peripheral circuits.
YES
CN3001 is not stable or break-down.


Checking the Terminal unit.
Check input/output signal of Lan.
YES
Check Lan circuits.
YES
Are there transmission signal at pin (13,14) of T9401? Are there received signal at pin (8,9) of T9401?
NO
Check T9401 and its peripheral circuits.
YES
Are there transmission signal at pin (1,2) of T9401 output? Are there transmission signal at pin (6,7) of T9401 input?
NO
T9401 are breakdown.
YES
CN3001 is not stable or break-down.

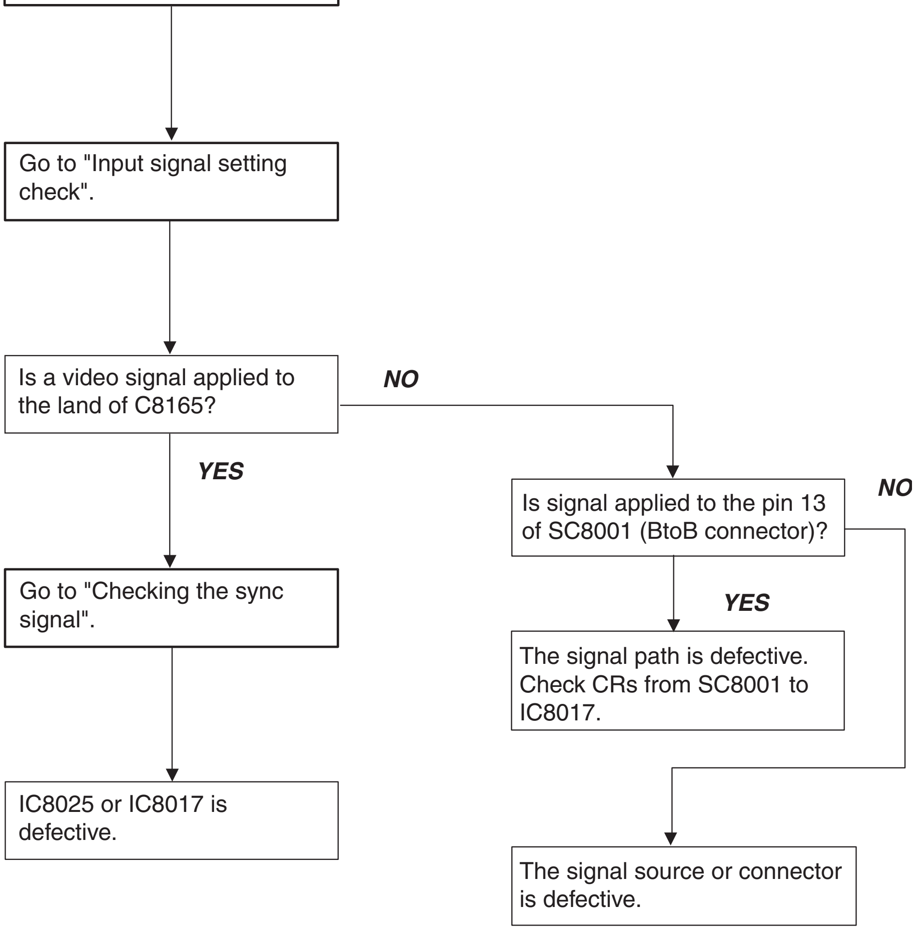

Checking the Terminal unit.
Check input signal of INPUT1.
YES
Check RGB input signal circuits..
YES
Are there signal at C3031(B), C3038(G) and C3041(R) output?
NO
Check C3031(B), C3038(G), C3041(R) and its peripheral circuits.
YES
Are there any sync signal at pin (16) to "B", pin (18) to "G", pin (20) to "R" of IC3007 output?
NO
Check IC3007 and its peripheral circuits.
YES
CN3001 is not stable or break-down.


PC board check
0
Is the user menu displayed?
YES
NO
OSD check
Checking the RGB input.
Checking the component input.
Checking of VIDEO input.
DVI digital input check.
End.

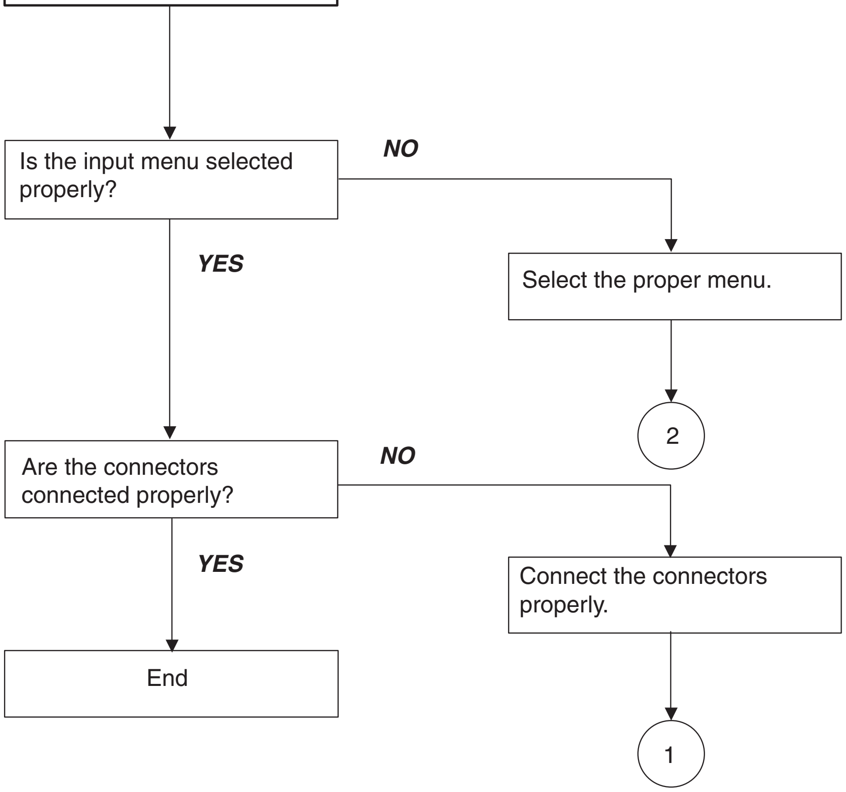

OSD check
Is the user menu normally displayed with the MENU key?
YES
OSD is normal.
NO
Enter the process menu to select PATTERN. Select the COLOR pattern.
Is the OSD display color normal?
NO
Adjust the DLP system with the process adjustment.
0
YES
Select the STEP signal.
Is the STEP signal normal?
YES
Rewrite the OSD data.
0
NO
Are signals suitable for STEP signals sent to TL8047, 8048 and 8049?
NO
IC8025 is defective.
YES
Go to "Checking the periphery of GA5".
Rewrite the OSD data.

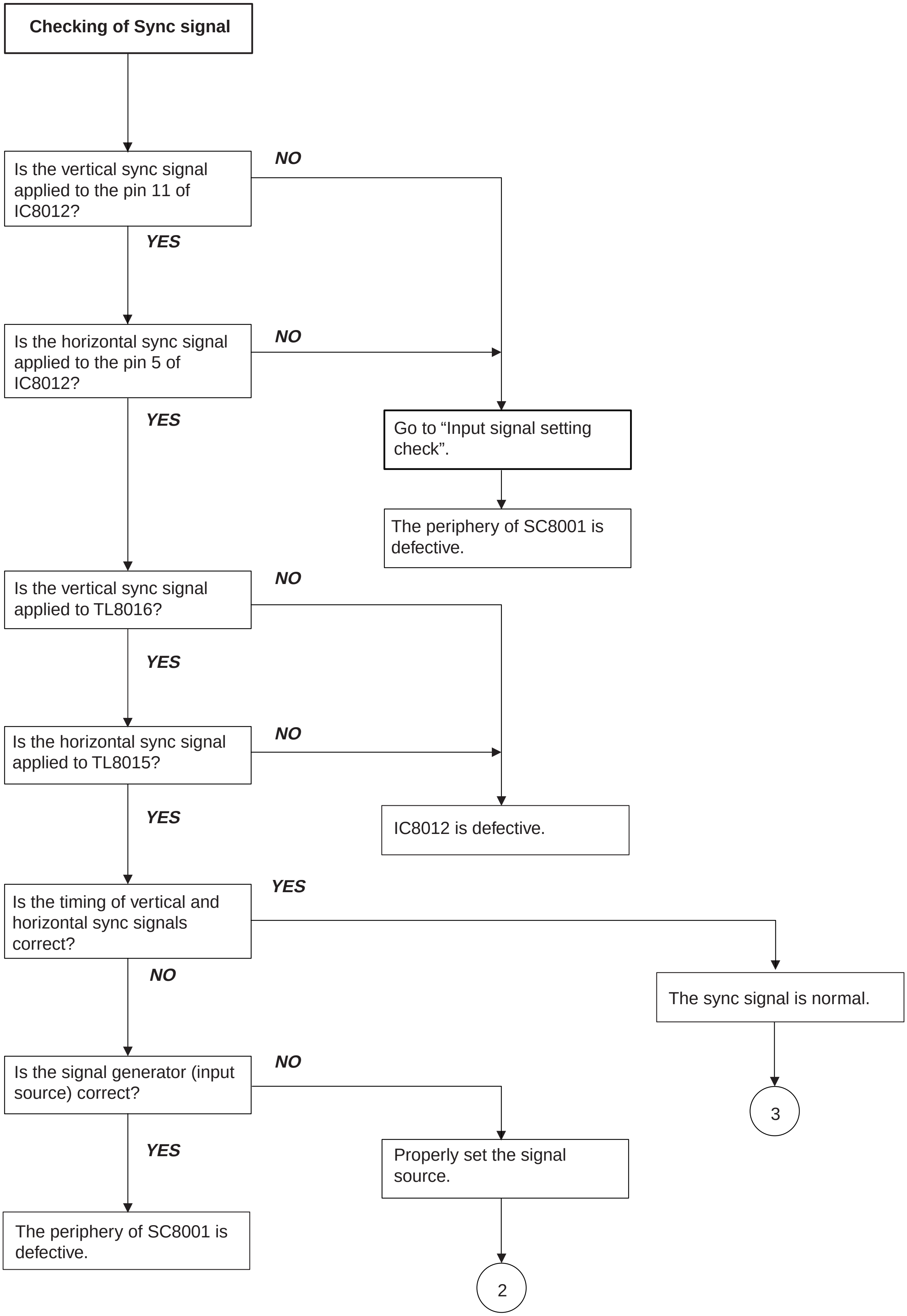

Checking the RGB input
Feed the sync separation analog RGB signal to INPUT1.
1
Select INPUT1 by using the panel key or remote control.
2
Is a picture displayed?
NO
Go to "Video input check".
YES
Is a picture distorted?
YES
Go to "Checking of sync signal".
NO
3
Are three colors (R, G and B) displayed?
NO
Go to "RGB signal check".
YES
Perform AUTOSYNC.
Is the contour displayed properly?
NO
YES
Are vertical stripe patterns distorted?
YES
IC8017 or the periphery of IC8025 is defective.
NO
End

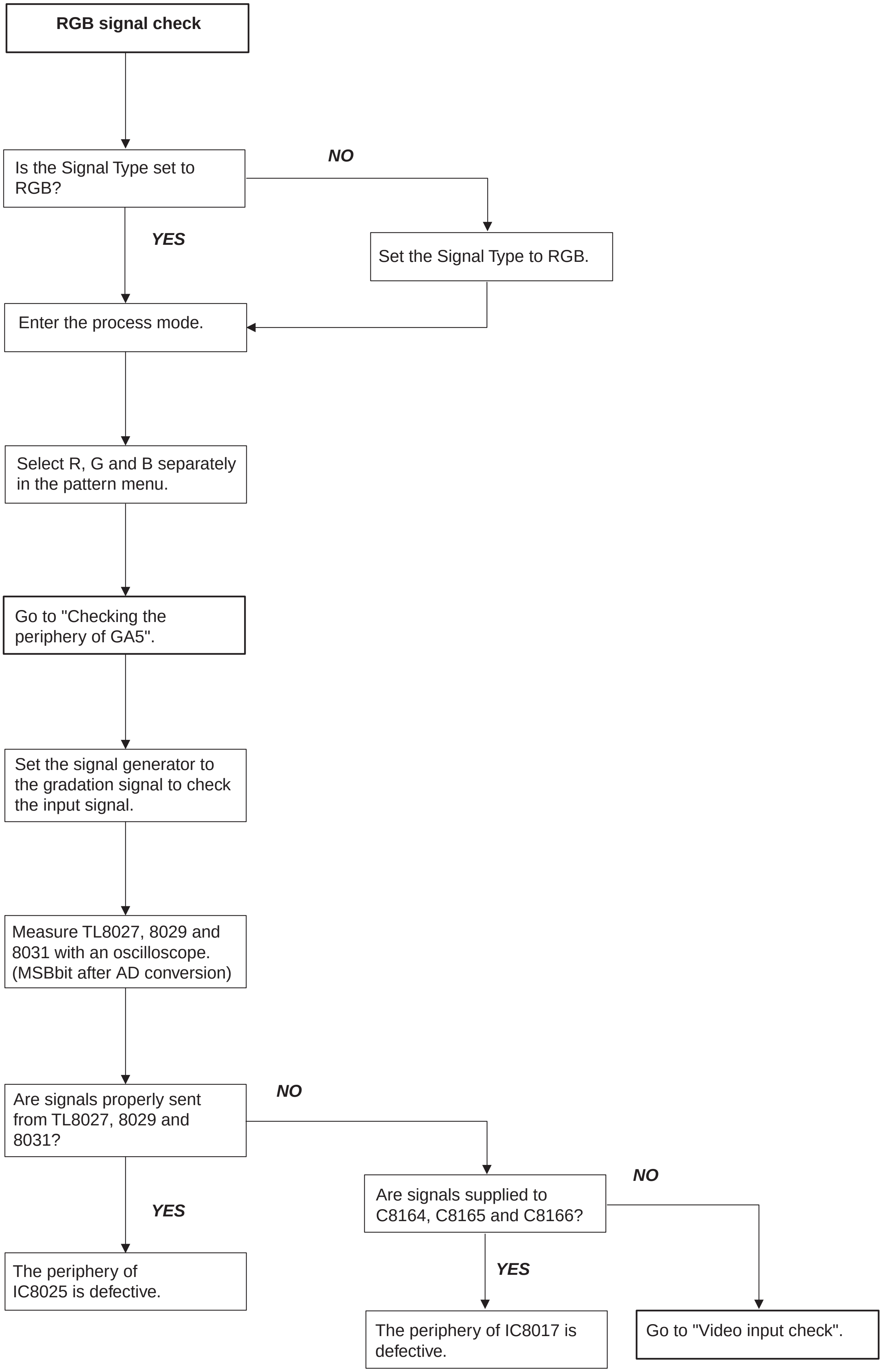
## Video input check

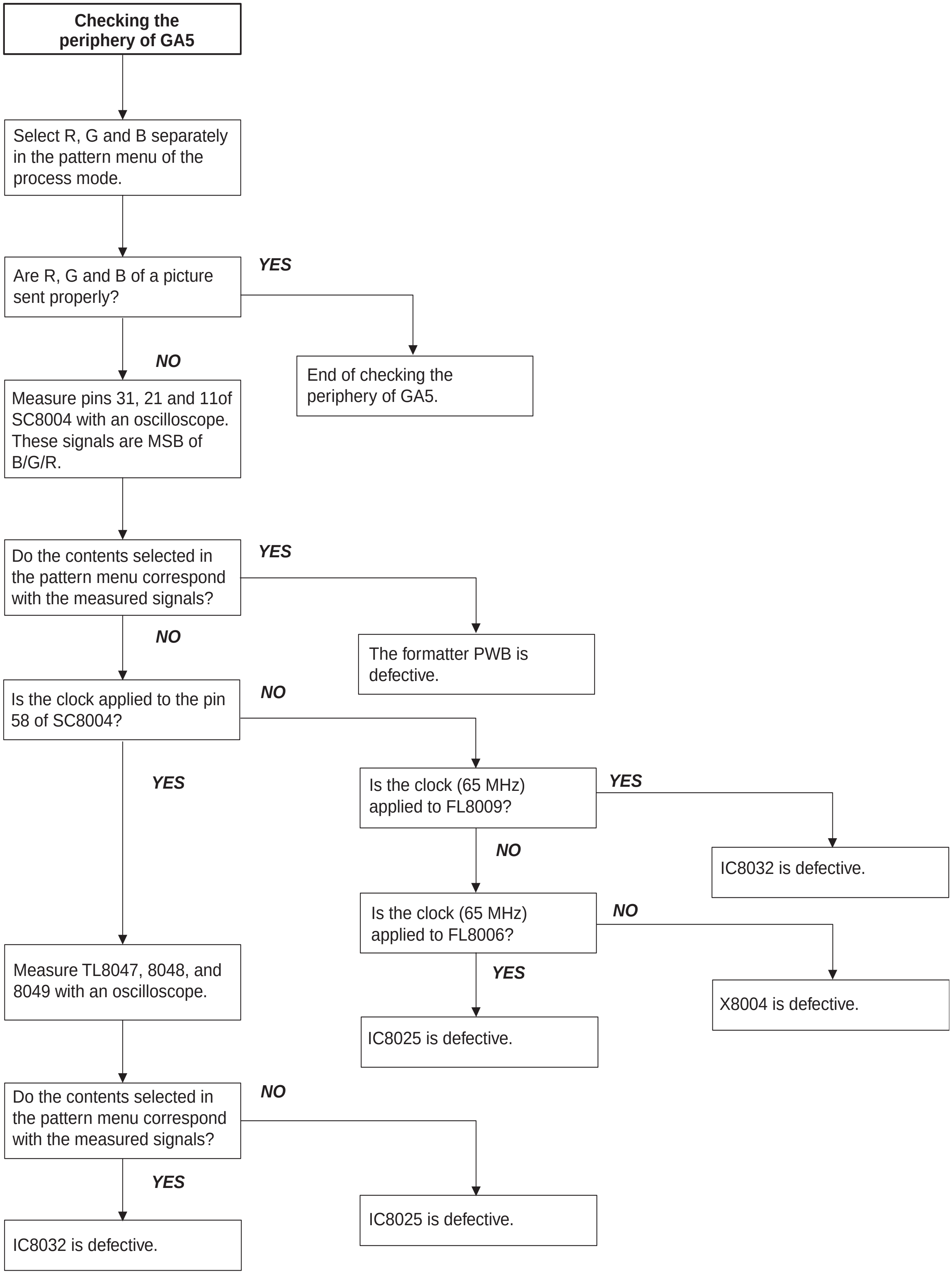

Go to "Input signal setting check".
Is a video signal applied to the land of C8165?
NO
YES
Is signal applied to the pin 13 of SC8001 (BtoB connector)?
NO
Go to "Checking the sync signal".
YES
The signal path is defective. Check CRs from SC8001 to IC8017.
IC8025 or IC8017 is defective.
The signal source or connector is defective.

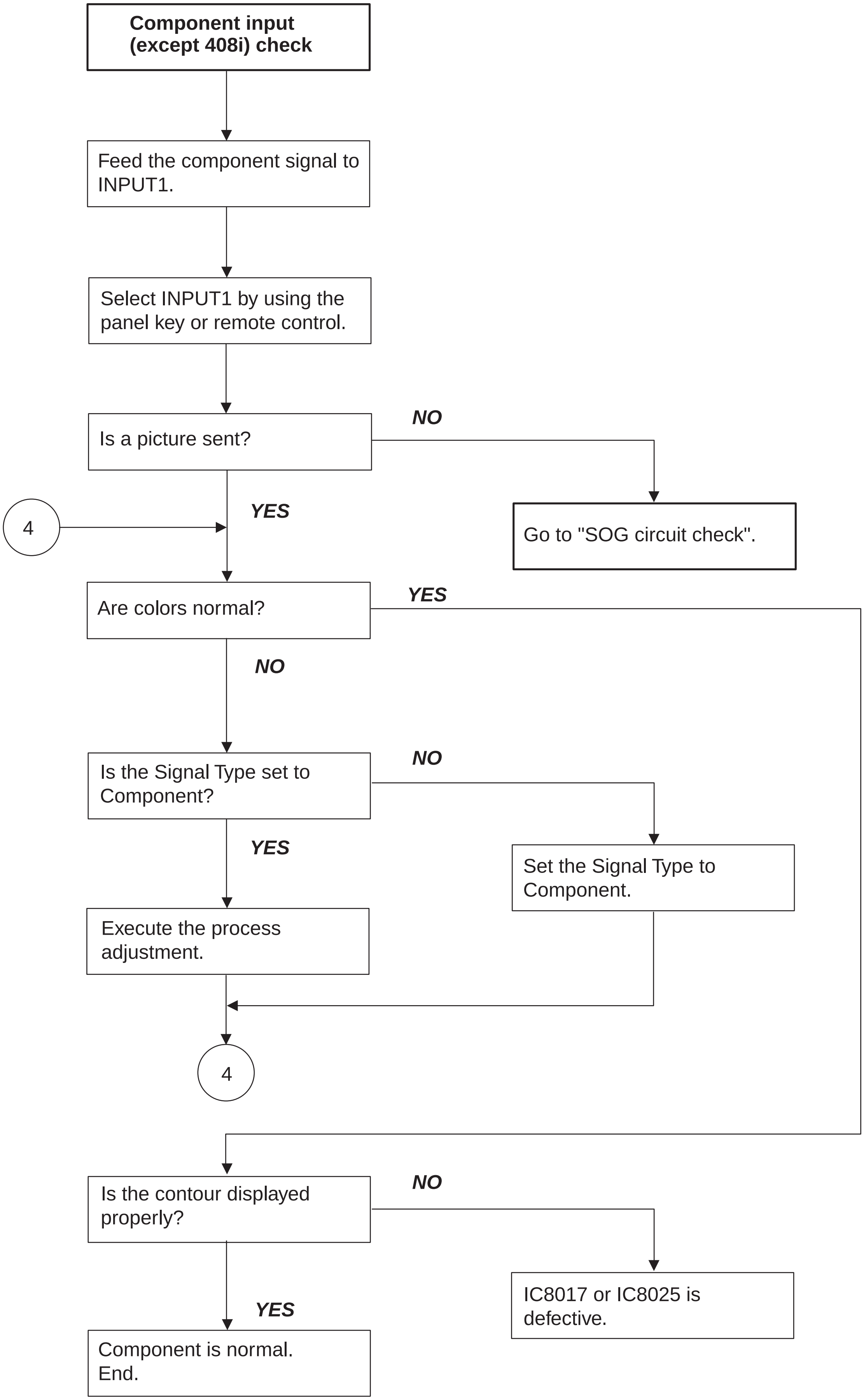
## Input signal setting check

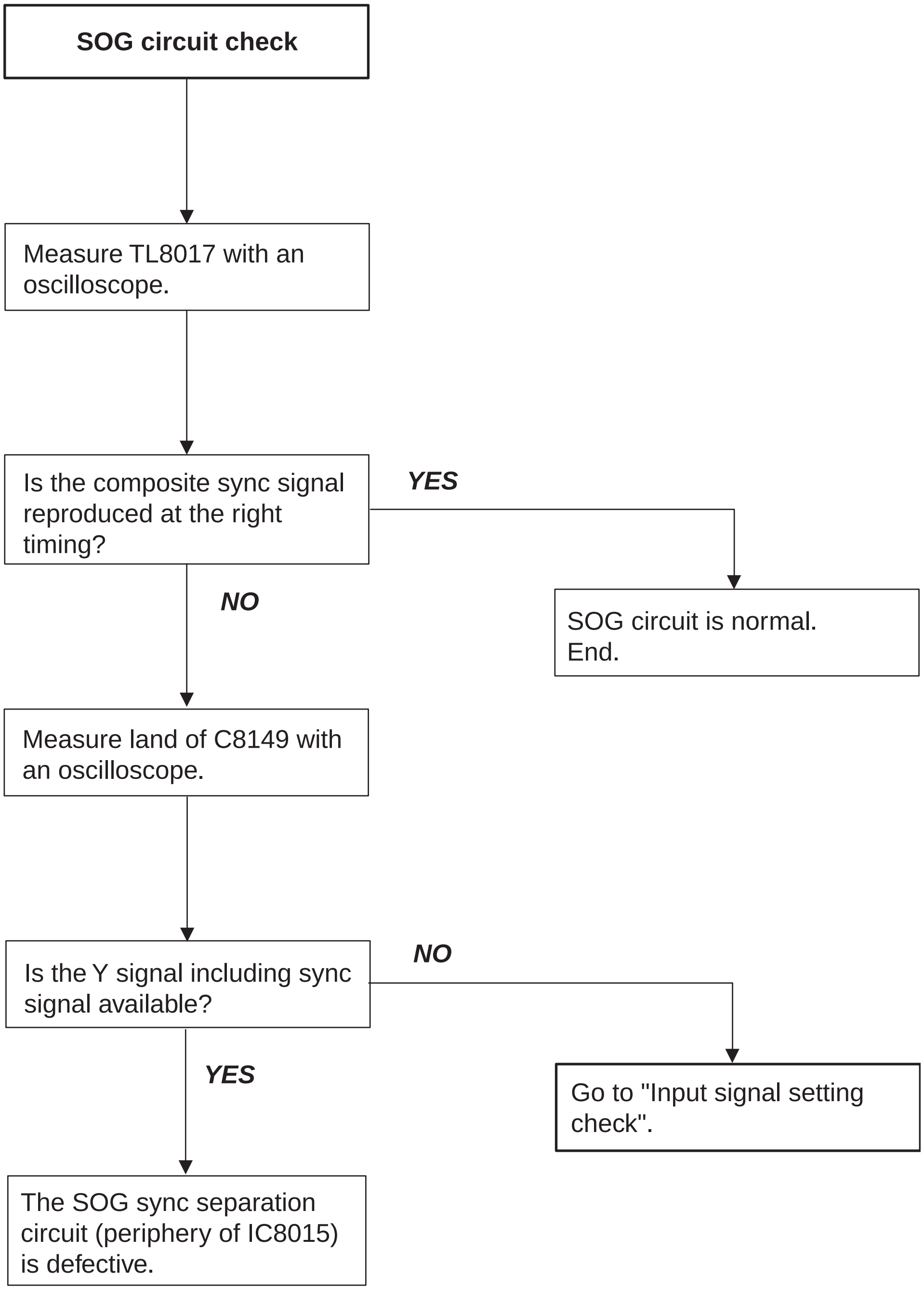

Is the input menu selected properly?
NO
YES
Select the proper menu.
2
Are the connectors connected properly?
NO
YES
Connect the connectors properly.
End
1

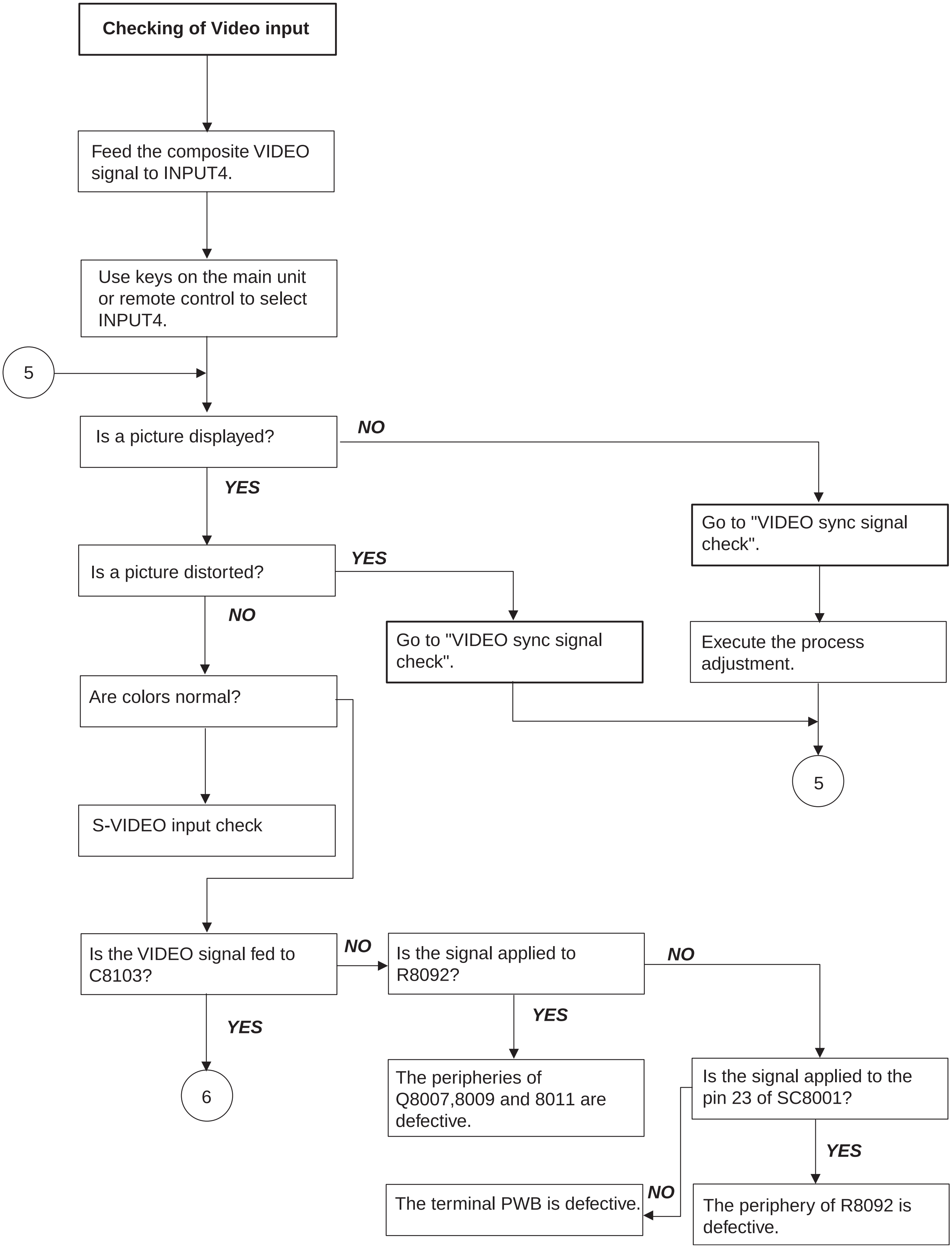

Checking of Sync signal
Is the vertical sync signal applied to the pin 11 of IC8012?
NO
YES
Is the horizontal sync signal applied to the pin 5 of IC8012?
NO
YES
Go to “Input signal setting check”.
The periphery of SC8001 is defective.
Is the vertical sync signal applied to TL8016?
NO
YES
Is the horizontal sync signal applied to TL8015?
NO
YES
IC8012 is defective.
Is the timing of vertical and horizontal sync signals correct?
YES
NO
The sync signal is normal.
3
Is the signal generator (input source) correct?
NO
YES
Properly set the signal source.
The periphery of SC8001 is defective.
2

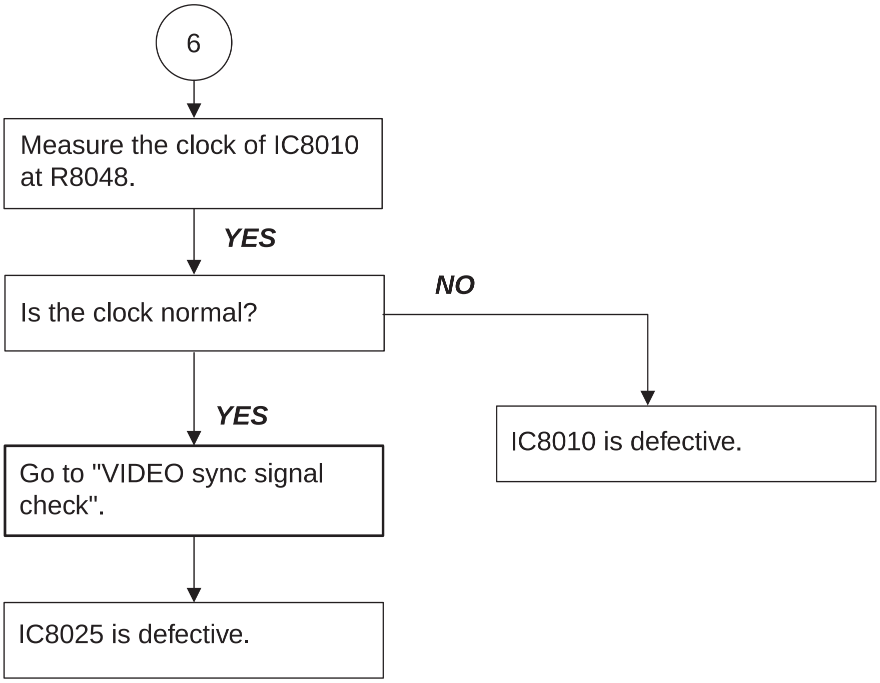

RGB signal check
Is the Signal Type set to RGB?
NO
Set the Signal Type to RGB.
YES
Enter the process mode.
Select R, G and B separately in the pattern menu.
Go to "Checking the periphery of GA5".
Set the signal generator to the gradation signal to check the input signal.
Measure TL8027, 8029 and 8031 with an oscilloscope. (MSBbit after AD conversion)
Are signals properly sent from TL8027, 8029 and 8031?
NO
Are signals supplied to C8164, C8165 and C8166?
NO
YES
The periphery of IC8025 is defective.
YES
The periphery of IC8017 is defective.
Go to "Video input check".

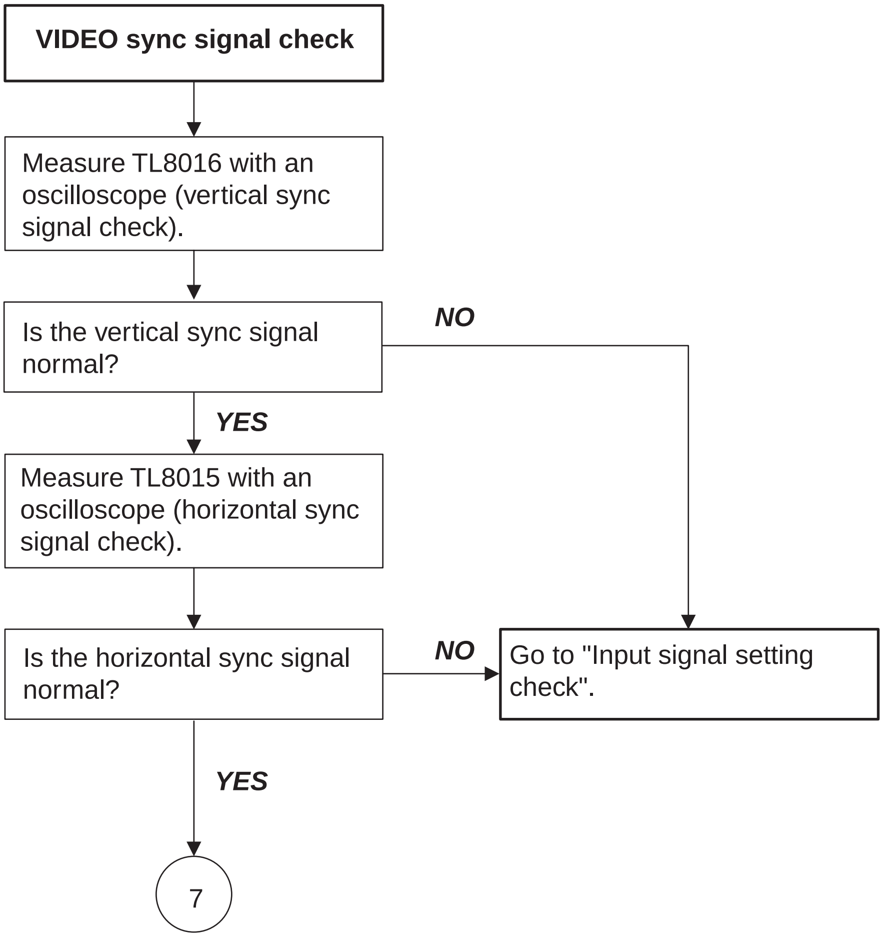

Checking the periphery of GA5
Select R, G and B separately in the pattern menu of the process mode.
Are R, G and B of a picture sent properly?
YES
End of checking the periphery of GA5.
NO
Measure pins 31, 21 and 11of SC8004 with an oscilloscope. These signals are MSB of B/G/R.
Do the contents selected in the pattern menu correspond with the measured signals?
YES
The formatter PWB is defective.
NO
Is the clock applied to the pin 58 of SC8004?
NO
Is the clock (65 MHz) applied to FL8009?
YES
IC8032 is defective.
NO
Is the clock (65 MHz) applied to FL8006?
NO
X8004 is defective.
YES
IC8025 is defective.
YES
Measure TL8047, 8048, and 8049 with an oscilloscope.
Do the contents selected in the pattern menu correspond with the measured signals?
NO
IC8025 is defective.
YES
IC8032 is defective.

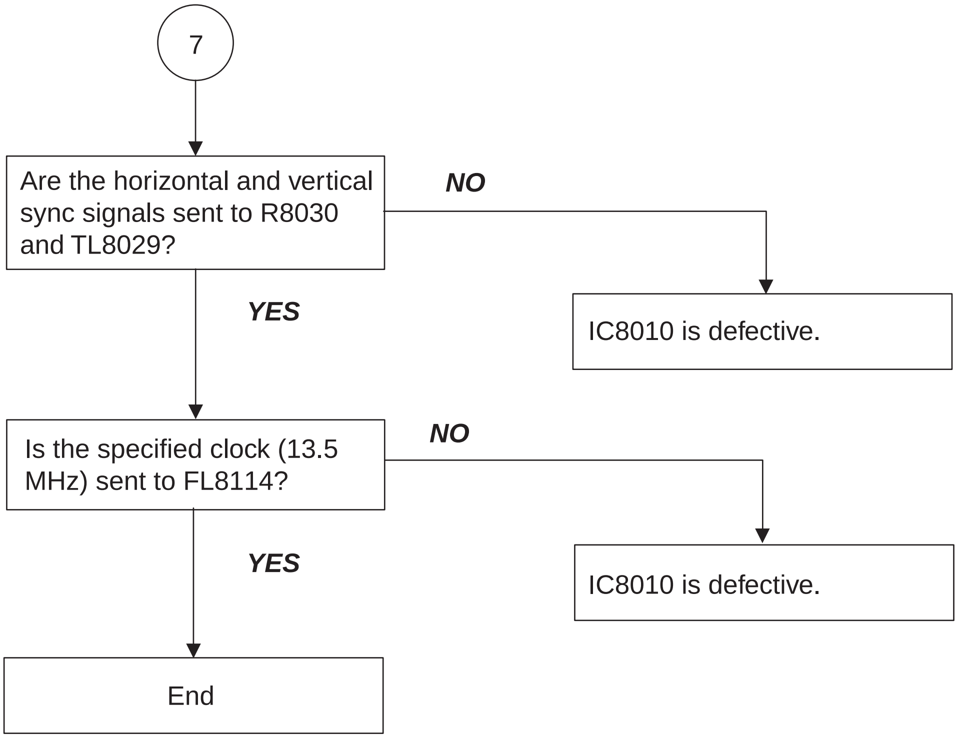

Component input (except 408i) check
Feed the component signal to INPUT1.
Select INPUT1 by using the panel key or remote control.
Is a picture sent?
NO
Go to "SOG circuit check".
YES
4
Are colors normal?
YES
NO
Is the Signal Type set to Component?
NO
Set the Signal Type to Component.
YES
Execute the process adjustment.
4
Is the contour displayed properly?
NO
IC8017 or IC8025 is defective.
YES
Component is normal. End.

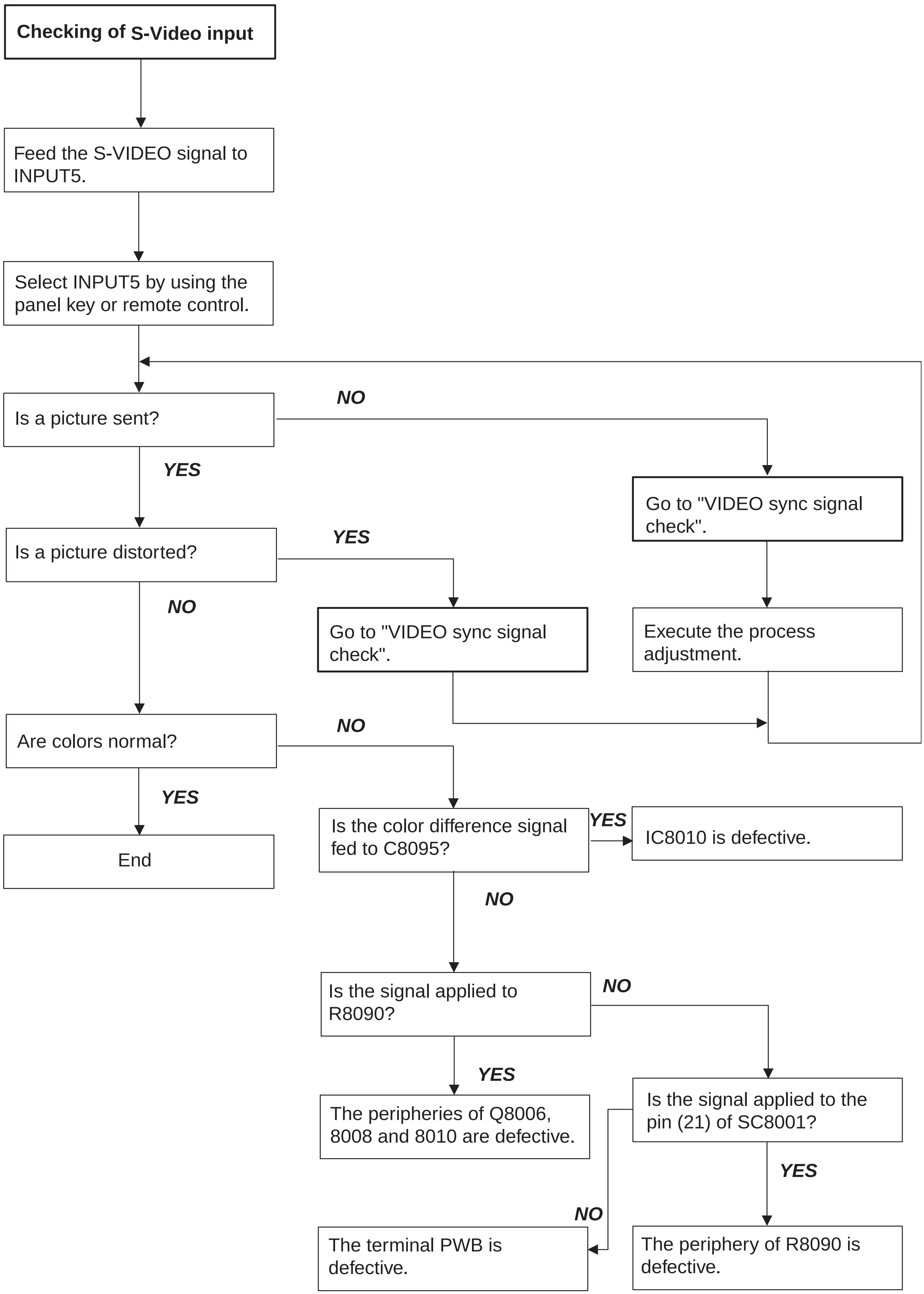

SOG circuit check
Measure TL8017 with an oscilloscope.
Is the composite sync signal reproduced at the right timing?
YES
SOG circuit is normal. End.
NO
Measure land of C8149 with an oscilloscope.
Is the Y signal including sync signal available?
NO
Go to "Input signal setting check".
YES
The SOG sync separation circuit (periphery of IC8015) is defective.

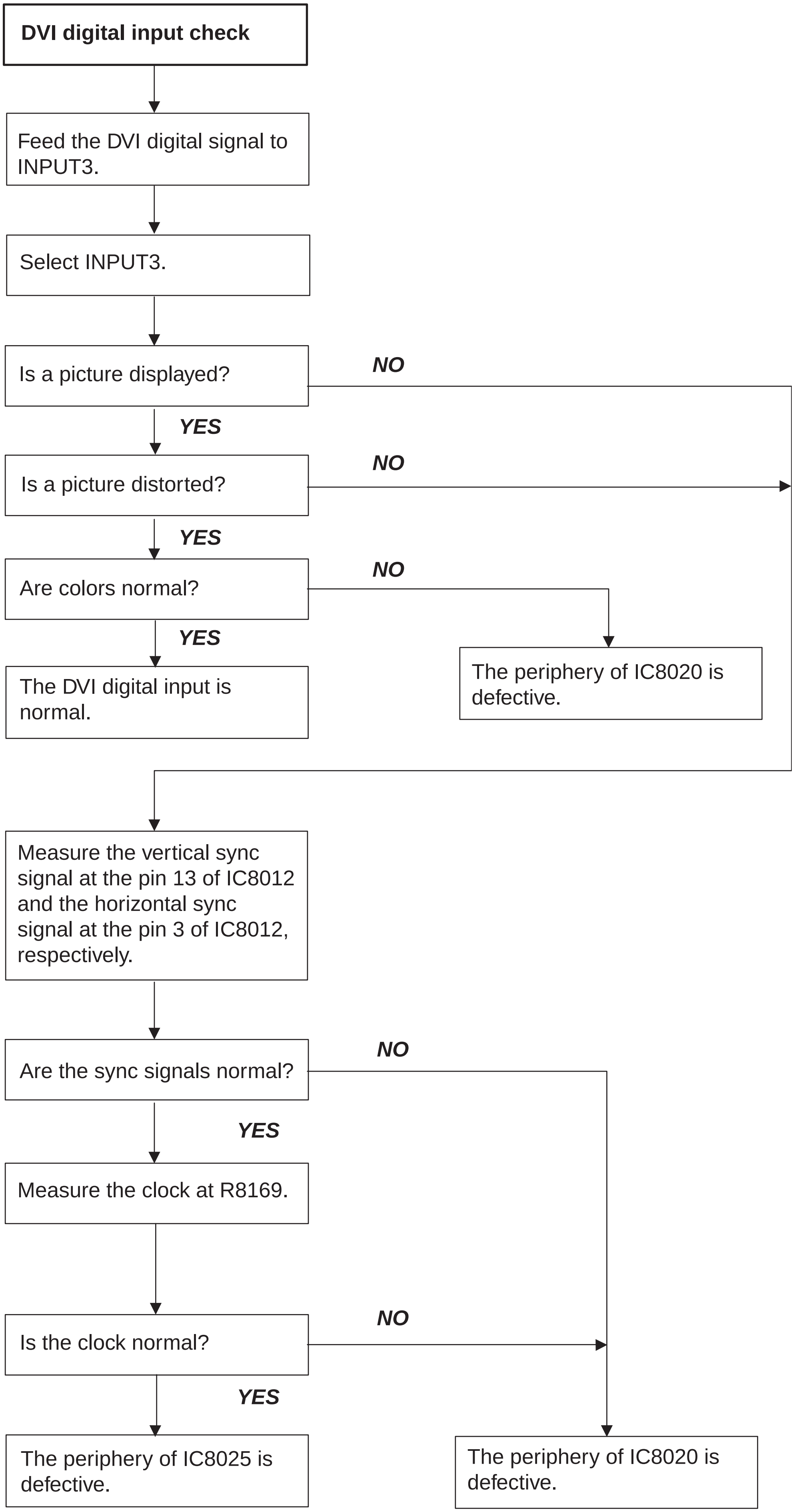

Checking of Video input
Feed the composite VIDEO signal to INPUT4.
Use keys on the main unit or remote control to select INPUT4.
5
Is a picture displayed?
NO
YES
Go to "VIDEO sync signal check".
Execute the process adjustment.
Is a picture distorted?
YES
NO
Go to "VIDEO sync signal check".
5
Are colors normal?
S-VIDEO input check
Is the VIDEO signal fed to C8103?
NO
YES
6
Is the signal applied to R8092?
NO
YES
The peripheries of Q8007,8009 and 8011 are defective.
Is the signal applied to the pin 23 of SC8001?
YES
NO
The terminal PWB is defective.
The periphery of R8092 is defective.


6
Measure the clock of IC8010 at R8048.
YES
Is the clock normal?
NO
IC8010 is defective.
YES
Go to "VIDEO sync signal check".
IC8025 is defective.


VIDEO sync signal check
Measure TL8016 with an oscilloscope (vertical sync signal check).
Is the vertical sync signal normal?
NO
YES
Measure TL8015 with an oscilloscope (horizontal sync signal check).
Is the horizontal sync signal normal?
NO
Go to "Input signal setting check".
YES
7


7
Are the horizontal and vertical sync signals sent to R8030 and TL8029?
NO
IC8010 is defective.
YES
Is the specified clock (13.5 MHz) sent to FL8114?
NO
IC8010 is defective.
YES
End


Checking of S-Video input
Feed the S-VIDEO signal to INPUT5.
Select INPUT5 by using the panel key or remote control.
Is a picture sent?
NO
YES
Go to "VIDEO sync signal check".
Execute the process adjustment.
Is a picture distorted?
YES
NO
Go to "VIDEO sync signal check".
Are colors normal?
NO
YES
End
Is the color difference signal fed to C8095?
YES
IC8010 is defective.
NO
Is the signal applied to R8090?
NO
YES
The peripheries of Q8006, 8008 and 8010 are defective.
Is the signal applied to the pin (21) of SC8001?
YES
NO
The terminal PWB is defective.
The periphery of R8090 is defective.


DVI digital input check
Feed the DVI digital signal to INPUT3.
Select INPUT3.
Is a picture displayed?
NO
YES
Is a picture distorted?
NO
YES
Are colors normal?
NO
YES
The DVI digital input is normal.
The periphery of IC8020 is defective.
Measure the vertical sync signal at the pin 13 of IC8012 and the horizontal sync signal at the pin 3 of IC8012, respectively.
Are the sync signals normal?
NO
YES
Measure the clock at R8169.
Is the clock normal?
NO
YES
The periphery of IC8025 is defective.
The periphery of IC8020 is defective.

# SPEZIFIKATIONEN

| | |
|---|---|
| Produkttyp | Multimedia-Projektor |
| Modell | XG-PH50X/XG-PH50X-NL |
| Videosystem | NTSC3.58/NTSC4.43/PAL/PAL-M/PAL-N/PAL-60/SECAM/DTV480I/DTV480P/DTV540P/DTV576I/DTV576P/DTV720P/DTV1035I/DTV1080I |
| Anzeigeverfahren | Single Chip Digital Micromirror Device™ (DMD™) von Texas Instruments |
| DMD-Panel | Panel-Größe: 0,7"<br>Anzahl der Bildpunkte: 786.432 Bildpunkte (1.024 [H] ✕ 768 [V]) |
| Standard-Zoomobjektiv | 1,2 ✕ Elektronik-Zoom/Fokuslinse, F: 1,8–2,0, f: 25,6–31,3 mm |
| Projektionslampe | 250 W ✕ 2 |
| Eingangs(INPUT 1)-/Ausgangs (OUTPUT)-signal-Komponente | 15-pol.-Mini-D-Sub-Anschluss<br>Y: 1,0 Vp-p, negatives Sync., 75 Ω terminiert<br>PB: 0,7 Vp-p, 75 Ω terminiert<br>PR: 0,7 Vp-p, 75 Ω terminiert |
| Horizontale Auflösung | 750 Fernsehzeilen (DTV 720P) |
| Eingangs(INPUT 2)-signal-Komponente | BNC-Anschluss<br>Y: 1,0 Vp-p, negatives Sync., 75 Ω terminiert<br>PB: 0,7 Vp-p, 75 Ω terminiert<br>PR: 0,7 Vp-p, 75 Ω terminiert |
| RGB-Eingangs (INPUT 1/2)-/Ausgangs (OUTPUT)-signal | 15-pol.-Mini-D-Sub-Anschluss, 5 BNC-Anschluss: RGB getrennt/Komposit-Sync. (TTL)/Sync. auf Grün-Typ<br>analoger Eingang: 0-0,7 Vp-p, positiv, 75 Ω terminiert<br>Horizontales Sync.-Signal: TTL-Pegel (positiv/negativ) oder Komposit-Sync. (nur Apple)<br>Vertikales Sync.-Signal: Wie oben |
| Digitales RGB-Eingangssignal (INPUT3) | DVI-Anschluss (24-Pin), RGB (digital), 250-1,000 mV, 50 Ω (HDCP-kompatibel) |
| Video-Eingangssignal (INPUT 4) | RCA-Anschluss: VIDEO, Verbund-Video, 1,0 Vp-p, negatives Sync., 75 Ω terminiert |
| S-Video-Eingangssignal (INPUT 5) | 4-pol.-Mini-DIN-Anschluss<br>Y (Luminanzsignal): 1,0 Vp-p, negatives Sync., 75 Ω terminiert<br>C (Chrominanzsignal): Stoß 0,286 Vp-p, 75 Ω terminiert |
| Audio-Eingangssignal | ø3,5 mm Stereo-Minibuchse, RCA-Buchse<br>0,5 Vrms, mehr als 22 k Ω |
| Audio-Ausgangssignal (AUDIO OUTPUT 1–5) | ø3,5 mm Minibuchse<br>0,5 Vrms, weniger als 2,2 k Ω |
| RS-232C-Anschluss | 9-pol. D-Sub-Anschluss |
| LAN-Anschluss | 8-pol. RJ-45-Modularanschluss |
| Pixeltakt | 12-230 MHz |
| Vertikale Frequenz | 43-200 Hz |
| Horizontale Frequenz | 15-126 kHz |
| Audio-Ausgang | 3,0 W (Stereo) |
| Lautsprechersystem | 4,5 cm rund ✕ 2 |
| Nennspannung | 100-240 V AC |
| Eingangsstrom | 6,3 A |
| Nennfrequenz | 50/60 Hz |
| Leistungsaufnahme | 630 W (wenn „Eco-Modus“ auf „OFF“) bzw. 505 W (wenn „Eco-Modus“ auf „On“) bei 100 V AC<br>600 W (wenn „Eco-Modus“ auf „OFF“) bzw. 485 W (wenn „Eco-Modus“ auf „On“) bei 240 V AC |
| Leistungsaufnahme (Bereitschaft) | 0,75 W (100 V AC)-1,25 W (240 V AC) (wenn „Monitor Aus.“ und „LAN/RS232C“ auf „Ausschalten“ gestellt sind) |
| Wärmeableitung | 2,370 BTU/Stunde (wenn „Eco-Modus“ auf „OFF“) bzw. 1,900 BTU/Stunde (wenn „Eco- Modus“ auf „ON“) bei 100 V AC<br>2,260 BTU/Stunde (wenn „Eco-Modus“ auf „OFF“) bzw. 1,825 BTU/Stunde (wenn „Eco- Modus“ auf „ON“) bei 240 V AC |
| Betriebstemperatur | 41°F bis 104°F (+5°C bis +40°C) |
| Lagertemperatur | –4°F bis 140°F (–20°C bis +60°C) |
| Gehäuse | Kunststoff |
| I/R-Trägerfrequenz | 38 kHz |
| Abmessungen (ca.) | 16 $^{5}/_{32}$" ✕ 7 $^{3}/_{32}$" ✕ 18 $^{35}/_{64}$" (410 (B) ✕ 180 (H) ✕ 471 (T) mm) (nur Hauptgerät)<br>16 $^{5}/_{32}$" ✕ 7 $^{37}/_{64}$" ✕ 18 $^{35}/_{64}$" (410 (B) ✕ 192,1 (H) ✕ 471 (T) mm) (einschließlich Einstellfüße und Projektionsteile) |
| Gewicht (ca.) | XG-PH50X: 32,7lbs. (14,8 kg), XG-PH50X-NL: 30,0lbs.(13,6kg) |
| Ersatzteile | Lampeneinheit (AN-PH50LP1/AN-PH50LP2), Fernbedienung (9NK5041808700), Netzkabel für USA, Kanada usw. (9NK3090152800), Netzkabel für Europa, außer Großbritannien (9NK3090152700), Netzkabel für Großbritannien, Hongkong und Singapur (9NK3090152900), Netzkabel für Australien, Neuseeland und Ozeanien (9NK3090152600), RGB-Kabel (9NK3080431000), Funkmaus-Empfänger (9NK3790197000), Objektivkappe für Standard-Zoomobjektiv (9NK3797200400), Projektorhandbuch- und Technische Referenz-CD-ROM (9NK3532094500), Bedienungsanleitung (9NK5010011800) |

***Bedingt durch fortlaufende technische Verbesserungen behält sich SHARP das Recht vor, das Design und die Spezifikationen ohne vorherige Ankündigung ändern zu können. Die angegebenen Leistungswerte stellen die Nennwerte einer in Serienherstellung produzierten Einheit dar. Geringe Abweichungen bei einzelnen Geräten sind möglich.***

# HINWEISE FÜR DAS WARTUNGSPERSONAL

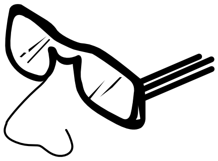
## ACHTUNG: UV-STRAHLUNG

**Die Beleuchtungsquelle des LCD-Projektors, eine UHP-Lampe, emittiert eine geringe Menge UV-Strahlung.**

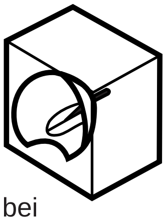
## DIREKTE BESTRAHLUNG AUF AUGEN UND HAUT MUSS VERMIEDEN WERDEN.

**Zur Gewährleistung der Sicherheit muß folgendes beachtet werden:**

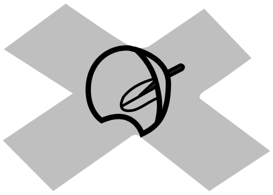
1. Bei Arbeiten am Projektor bei eingeschalteter Lampe und abgenommenem oberen Gehäuse muß unbedingt eine Sonnenbrille getragen werden.



2. Die Lampe darf nicht außerhalb des Lampengehäuses eingeschaltet werden.



3. Betrieb für länger als 2 Stunden bei abgenommenem Gehäuse ist nicht zulässig.



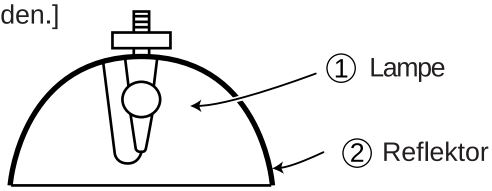
## Zur Beachtung bei UV-Strahlung und Mitteldruck-Lampen

1. Vor dem Auswechseln der Lampe muß der Netzstecker gezogen werden.
2. Vor Durchführung von Wartungsarbeiten muß das Gerät eine Stunde abkühlen.
3. Die Lampe darf nur gegen eine der gleichen Art ausgewechselt werden. Typ AN-PH50LP1 und AN-PH50LP2, bemessen für 250W.
4. Die Lampe gibt eine geringe UV-Strahlung ab, daher muß direkter Augenkontakt vermieden werden.
5. Die Mitteldruck-Lampe weist ein Explosionsrisiko auf. Daher müssen die nachstehenden Installationsanweisungen beachtet werden, und die Lampe muß vorsichtig behandelt werden.

## ■ Auswechseln der Lampe

### Hinweis:

Da die Lampe während des Betriebs sehr heiß wird, sollte die Lampe erst ausgewechselt werden, nachdem das Gerät mindestens eine Stunde ausgeschaltet war, damit die Lampe ausreichend abkühlen kann.
Beim Installieren der neuen Lampe muß darauf geachtet werden, die Lampe selbst (Glaskolben) nicht zu berühren. Vielmehr muß die Lampe am Reflektor ② gehalten werden.
[Es darf nur ein Original-Ersatzteil verwendet werden.]



**GEFAHR!** — Niemals die Spannungsversorgung einschalten, ohne daß eine Lampe vorhanden ist, um elektrische Schläge und Schäden am Gerät zu vermeiden, da der Stabilisator anfangs hohe Spannungen erzeugt.

Da eine geringe Menge UV-Strahlung an der Öffnung zwischen den Lüftern austritt, wird empfohlen, während der Wartungsarbeiten die Abdeckkappe des Zusatzobjektivs an dieser Öffnung anzubringen, um Augen und Haut vor den UV-Strahlen zu schützen.

## Vorsichtsmaßregeln für bleifreien Lötzinn

1 Verwendung von bleifreiem Lötzinn

Bei den Platinen für dieses Modells wird bleifreies Lot verwendet. Das Symbol LF kennzeichnet bleifreies Lot und findet sich an den Platinen und in den Wartungshandbüchern. Der Buchstabe hinter LF bezieht sich auf die Art des bleifreien Lots.

Beispiel:

**LFa**

Sn-Ag-Cu Zeigt bleifreien Lötzinn aus Zinn, Silber und Kupfer an.

2 Bei Reparatur der mit bleifreiem Lötzinn gelöteten Platine immer bleifreien Lötzinn verwenden. Reparatur mit herkömmlichem Lötzinn kann zu Schäden oder Unfällen aufgrund von Rissen führen.

Da der Schmelzpunkt bleifreien Lvtzinns (Sn-Ag-Cu) um 40°C höher als der von Bleidraht-Lötzinn ist, empfehlen wir die Verwendung einer speziellen Lötspitze. Wenn Fragen über den Beschaffung leitfreien Lötzinns oder spezieller Lötspitzen bestehen, wenden Sie sich an unsere Kundendienstvertretung in Ihrem Gebiet.

3 Löten

Da der Schmelzpunkt bleifreien Lötzinns (Sn-Ag-Cu) etwa 220°C beträgt, was um 40°C höher als der von bleihaltigem Lötzinn ist, und außerdem schlechte Löt-Benetzbarkeit aufweist, kann es erforderlich werden, die Lötspitze längere Zeit in Kontakt mit der Platine zu halten. Da die Lötlauge abfliessen kann oder der maximale Hitzewiderstand von Teilen überschritten werden kann, die Lötspitze sofort von der Platine nehmen, sobald eine gute Lötung erzielt ist.

Bleifreier Lötzinn enth_lt mehr Zinn, und das Ende der Lötspitze kann leicht angegriffen werden. Immer sicherstellen, dass der Lötkolben nur bei Bedarf eingeschaltet wird.

Wenn ein anderer Typ von Lötzinn an der Lötspitze haften bleibt, verschmilzt er mit dem bleifreien Lötzinn. Die Lötspitze nach jeder Verwendung reinigen.

Wenn die Lötspitze bei der Verwendung geschwärzt wird, die Spitze mit Stahlwolle oder feinem Sandpapier abschmirgeln.

Immer beim Austausch von Teilen vorsichtig sein, und die Polaritätsanzeige auf der Platinenbeschriftung beachten.

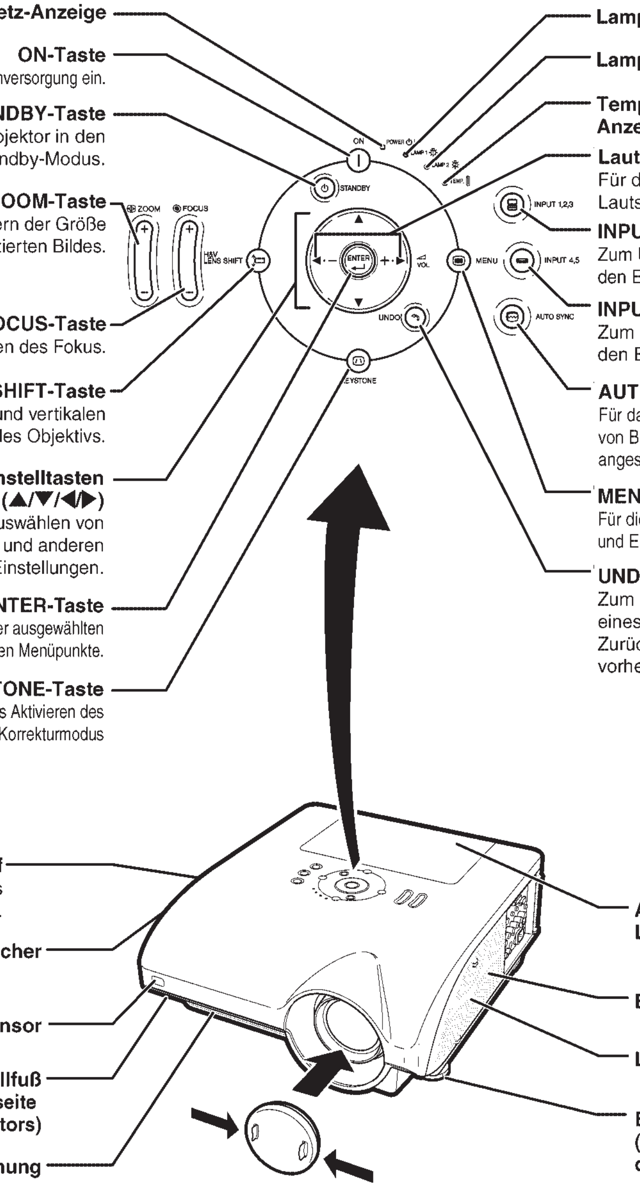
Bleifreier Lötzinn zur Wartung

| Teile-Nr. | ★ | Beschreibung | Code |
|---|---|---|---|
| ZHNDAi123250E | J | ϕ0.3mm 250g(1roll) | BL |
| ZHNDAi126500E | J | ϕ0.6mm 500g(1roll) | BK |
| ZHNDAi12801KE | J | ϕ1.0mm 1 Rolle | BM |

# Bedienungsanleitung

## Projektor

### Draufsicht



**Netz-Anzeige**

**ON-Taste**
Schaltet die Stromversorgung ein.

**STANDBY-Taste**
Schaltet den Projektor in den Standby-Modus.

**ZOOM-Taste**
Zum Ändern der Größe des projizierten Bildes.

**FOCUS-Taste**
Zum Einstellen des Fokus.

**H & V LENS SHIFT-Taste**
Zum horizontalen und vertikalen Verschieben des Objektivs.

**Einstelltasten (▲/▼/◀/▶)**
Für das Auswählen von Menüpunkten und anderen Einstellungen.

**ENTER-Taste**
Für das Einstellen der ausgewählten oder eingestellten Menüpunkte.

**KEYSTONE-Taste**
Für das Aktivieren des Trapezverzerrungs-Korrekturmodus

**Lampen-Anzeige 1**

**Lampen-Anzeige 2**

**Temperaturwarn-Anzeige**

**Lautstärke-Tasten**
Für das Einstellen des Lautsprecher-Tonpegels.

**INPUT 1, 2, 3-Taste**
Zum Umschalten zwischen den Eingangsarten 1, 2 und 3.

**INPUT 4, 5-Taste**
Zum Umschalten zwischen den Eingangsarten 4 und 5.

**AUTO SYNC-Taste**
Für das automatische Einstellen von Bildern, wenn ein Computer angeschlossen ist.

**MENU-Taste**
Für die Anzeige des Justierungs- und Einstellungsbildschirms.

**UNDO-Taste**
Zum Rückgängigmachen eines Vorgangs oder zum Zurückkehren zur vorherigen Anzeige.

### Vorderansicht

**Tragegriff**
Zum Tragen des Projektors.

**Lautsprecher**

**Fernbedienungssensor**

**Einstellfuß**
**(auf der Unterseite des Projektors)**

**Einsaugöffnung**

**Abdeckung für Lampeneinheit**

**Einsaugöffnung**

**Lautsprecher**

**Einstellfuß**
**(auf der Unterseite des Projektors)**

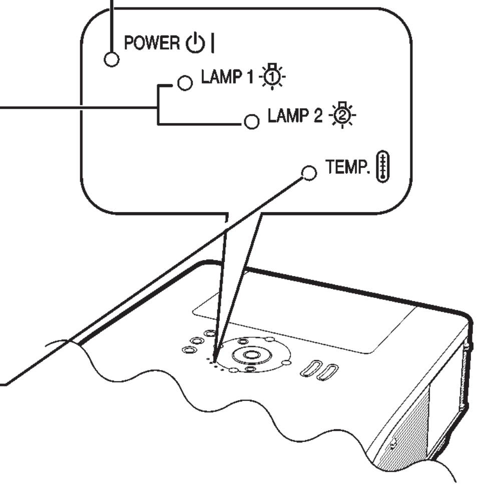
- **Anbringen der Objektivkappe**
  Drücken Sie die Objektivkappe auf, bis diese in Position einrastet.
- **Abnehmen der Objektivkappe**
  Ziehen Sie die Objektivkappe nach außen.

# Informationen über die Anzeigen des Projektors

**Netz-Anzeige**
Rot leuchtend ··· Normal (Standby)
Grün leuchtend ··· Normal (Eingeschaltet)
Rot blinkt ··· Die Lüftungsabdeckung ist geöffnet.

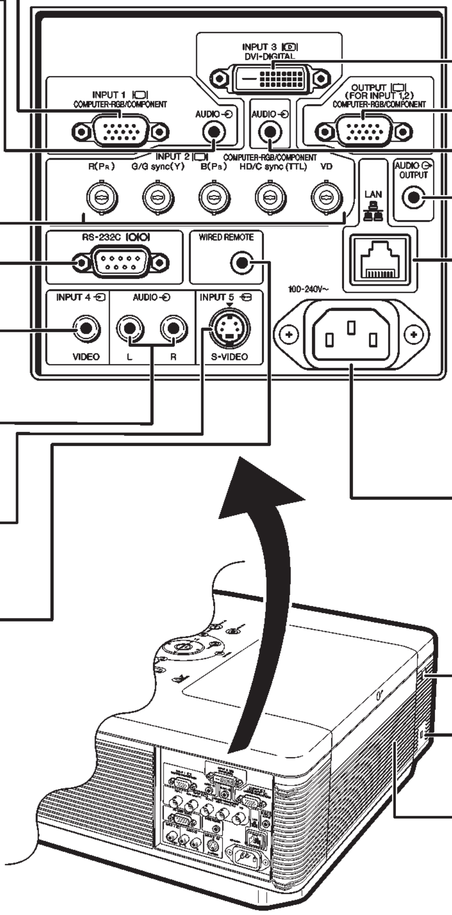
**Lampen-Anzeige 1, 2**
Grün leuchtend ··· Normal
Grün blinkend ··· Die Lampe wird aufgewärmt.
Rot leuchtend ··· Die Lampe wurde auf unnormale Weise ausgeschaltet oder muss ausgewechselt werden.

**Temperaturwarn-Anzeige**
Aus ··· Normal
Rot blinkt/leuchtet ··· Die Temperatur im Inneren des Gerätes ist zu hoch.



# Projektor (Rückansicht)

## Anschlüsse


INPUT 3
DVI-DIGITAL
INPUT 1
COMPUTER-RGB/COMPONENT
AUDIO
AUDIO
OUTPUT
(FOR INPUT 1,2)
COMPUTER-RGB/COMPONENT
INPUT 2
COMPUTER-RGB/COMPONENT
R(PR)
G/G sync(Y)
B(PB)
HD/C sync (TTL)
VD
LAN
AUDIO
OUTPUT
RS-232C
WIRED REMOTE
100-240V~
INPUT 4
AUDIO
INPUT 5
VIDEO
L
R
S-VIDEO

**INPUT 1-Anschluss**
Anschluss für Computer-RGB- und Komponentensignale.

**AUDIO-Eingangsanschluss (1)**
Audio-Eingangsanschluss (1) für INPUT 1.

**INPUT 2-Eingangsbuchsen**
BNC-Buchsen für Computer-RGB- und Komponenten-Signale.

**RS-232C-Anschluss**
Anschluss für die Bedienung des Projektors unter Verwendung eines Computers.

**INPUT 4-Anschluss**
Buchse für den Anschluss von Videogeräten.

**AUDIO-Eingangsbuchse (4, 5)**
Gemeinsamer Audioeingangsanschluss für INPUT 4 und 5.

**INPUT 5-Anschluss**
Anschluss für ein Videogerät mit einem S-VIDEO Anschluss.

**WIRED REMOTE-Anschluss**
Zum Anschluss der Fernbedienung an den Projektor, wenn die Signale der Fernbedienung nicht ausreichen, um den Fernbedienungs-Sensor zu erreichen.

**INPUT 3-Anschluss**
Buchsen für digitale DVI RGB- und digitale Komponenten-Signale.

**OUTPUT (FOR INPUT 1, 2)-Anschluss**
Ausgangsbuchse für Computer-RGB- und Komponenten-Signale. Gemeinsame Eingangsbuchse für INPUT 1 und 2.

**AUDIO-Eingangsbuchse (2, 3)**
Gemeinsamer Audioeingangsanschluss für INPUT 2 und 3.

**AUDIO OUTPUT-Anschluss**
Geteiltes Audio Ausgabeanschluss für INPUT 1-5.

**LAN-Anschluss**
Anschluss für die Steuerung des Projektors mit Hilfe eines Computers über ein Netzwerk.

**Netzanschluss**
Schließen Sie das mitgelieferte Netzkabel an.

**Fernbedienungssensor**

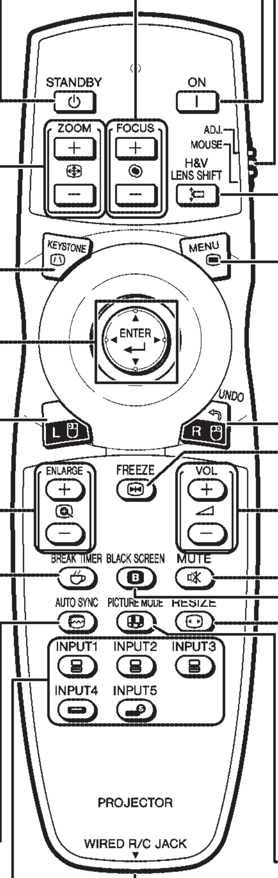
**Kensington-Sicherheitsstandardanschluss**

**Luftaustrittöffnung**
Die Geschwindigkeit und das Geräusch des Kühlventilators kann sich abhängig von internen Temperaturschwankungen während des Betriebes verändern. Dies ist ein normaler Vorgang und kein Zeichen für eine Fehlfunktion.

**Verwendung der Kensington-Sperre**

- Dieser Projektor ist mit einem Kensington-Sicherheitsstandardanschluss für die Verwendung des Kensington MicroSaver-Sicherheitssystems ausgestattet. Lesen Sie hinsichtlich dessen Verwendung die Informationen, die dem System beiliegen, um den Projektor zu sichern.

# Fernbedienung



**FOCUS-Tasten**
Für die Scharfeinstellung des projizierten Bildes.

**STANDBY-Taste**
Schaltet den Projektor in den Standby-Modus.

**ZOOM-Tasten**
Für das Einstellen der projizierten Bildgröße.

**KEYSTONE-Taste**
Für das Aktivieren des Trapezverzerrungs-Korrekturmodus.

**Maus-/Einstellungstaste (▲/▼/◀/▶)**
- Um den Computer-Cursor bewegen zu können, wenn der Schalter ADJ./MOUSE auf Position MOUSE gestellt ist.
- Um Menüpunkte auswählen zu können, wenn der Schalter ADJ./MOUSE auf Position ADJ. gestellt ist.

**ENTER-Taste**
Für die Einstellung der gewählten oder eingestellten Menüpunkte.

**L-click-Taste**
Zum Ausführen eines Linksklicks, wenn der Schalter ADJ./MOUSE auf Position MOUSE gestellt ist.

**ENLARGE-Tasten (Vergrößern/Verkleinern)**
Für das Vergrößern/Verkleinern eines Bildteils.

**BREAK TIMER-Taste**
Zum Einstellen der Pausendauer.

**AUTO SYNC-Taste**
Für das automatische Einstellen von Bildern, wenn ein Computer angeschlossen ist.

**Tasten für INPUT 1, 2, 3, 4 und 5**
Für das Umschalten auf die entsprechende Eingangs-Betriebsart.

**ON-Taste**
Schaltet die Stromversorgung ein.

**ADJ./MOUSE-Schalter**
Zum Umschalten zwischen den Fernbedienungsarten.

**H & V LENS SHIFT-Taste**
Zur horizontalen und vertikalen Verschieben des Objektivs.

**MENU-Taste**
Für die Anzeige des Justierungs- und Einstellungsbildschirms.

**R-click/UNDO-Taste**
- Zum Ausführen eines Rechtsklicks, wenn der Schalter ADJ./MOUSE auf Position MOUSE gestellt ist.
- Um einen Vorgang rückgängig zu machen oder zur vorhergehenden Anzeige zurückzukehren, wenn der Schalter ADJ./MOUSE auf Position ADJ. gestellt ist.

**FREEZE-Taste**
Für das Einfrieren von Bildern.

**Lautstärke-Tasten**
Für das Einstellen des Lautsprecher-Tonpegels.

**MUTE-Taste**
Zum zeitweisen Stummschalten.

**BLACK SCREEN-Taste**
Zum vorübergehenden Einblenden des Schwarzbildes.

**RESIZE-Taste**
Für das Umschalten der Bildwandgröße.

**PICTURE MODE-Taste**
Zum Umschalten des Bildmodus.

**WIRED R/C JACK**
Zum Anschluss der Fernbedienung an den Projektor, wenn die Signale der Fernbedienung nicht ausreichen, um den Fernbedienungs-Sensor zu erreichen.

Hinweis

- Alle Tasten auf der Fernbedienung, mit Ausnahme der Maus-/Einstelltaste und des ADJ./MOUSE-Schalters bestehen aus einem leuchtenden Material, das im Dunkeln gut sichtbar ist. Der Leuchteffekt lässt mit der Zeit nach. Die selbstleuchtenden Tasten werden wieder aufgeladen, w-enn Sie Licht ausgesetzt werden.

## Reichweite

**Der Projektor kann mittels der Fernbedienung innerhalb der in der Abbildung dargestellten Bereiche gesteuert werden.**

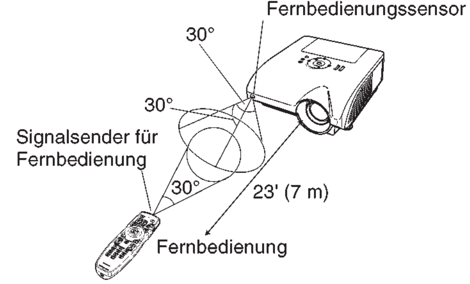
Hinweis

- Das Signal von der Fernbedienung kann für eine einfache Bedienung von der Bildwand reflektiert werden. Die tatsächliche Reichweite des Signals kann je nach Bildwandmaterial unterschiedlich sein.

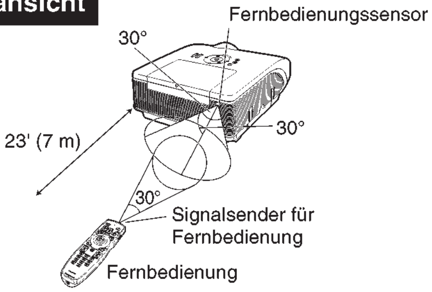
### Bei Verwendung der Fernbedienung:

- Nicht fallen lassen, keiner Feuchtigkeit oder hohen Temperatur aussetzen.
- Die Fernbedienung funktioniert unter Umständen nicht unter einer Fluoreszenzlampe. Unter diesen Umständen den Projektor von der Fluoreszenzlampe entfernt aufstellen.

**Vorderansicht**



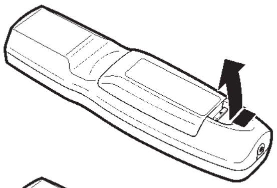
**Rückansicht**



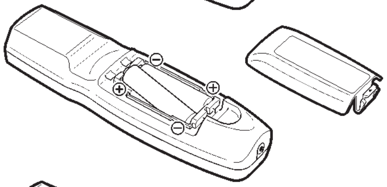
## Einsetzen der Batterien

**Die Batterien (zwei R6-Batterien („AA“, UM/SUM-3, HP-7 oder ähnlich)) sind in der Packung enthalten.**

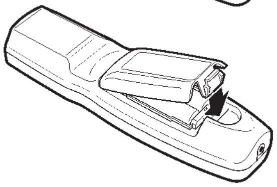
**1** **Ziehen Sie die Lasche an der Abdeckung herunter und entfernen Sie die Abdeckung in Pfeilrichtung.**



**2** **Die beiliegenden Batterien einlegen.**
- Die Batterien einlegen und sicherstellen, dass die Pole mit der Markierung ⊕ und ⊖ im Batteriefach übereinstimmen.



**3** **Führen Sie die Zapfen am unteren Ende der Batteriefach-Abdeckung in die hierfür vorgesehenen Öffnungen ein und drücken Sie die Abdeckung fest.**



**Falsche Verwendung der Batterien kann ein Auslaufen oder Explosion zur Folge haben. Bitte befolgen Sie die unten stehenden Vorsichtsmaßnahmen.**

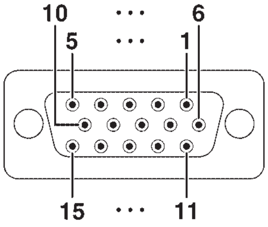
### ⚠ Achtung

- Die Batterien einlegen und sicherstellen, dass die Pole mit den Markierungen ⊕ und ⊖ im Batteriefach übereinstimmen.
- Batterien unterschiedlichen Typs haben unterschiedliche Eigenschaften, verwenden Sie deshalb keine Batterien unterschiedlichen Typs zusammen.
- Verwenden Sie keine neuen und alten Batterien zusammen.
  Dadurch könnte die Lebensdauer der neuen Batterien reduziert oder ein Auslaufen der Batterien verursacht werden.
- Nehmen Sie leere Batterien aus der Fernbedienung heraus, da sie ansonsten auslaufen könnten.
  Aus den Batterien ausgelaufene Batterieflüssigkeit ist für Ihre Haut schädlich, wischen Sie die Batterien deshalb unbedingt zuerst ab und nehmen Sie sie dann mit einem Tuch heraus.

- Die diesem Projektor beiliegenden Batterien können unter Umständen, je nach Handhabung, nach kurzer Zeit aufgebraucht sein. Stellen Sie sicher, dass sie so bald wie möglich durch neue Batterien ersetzt werden.
- Nehmen Sie die Batterien heraus, wenn die Fernbedienung lange nicht verwendet wird.

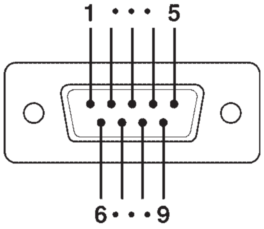
# Pin-Belegung

**RGB- Signal-Anschluss (INPUT 1 und OUTPUT (INPUT 1, 2)):** 15-pol. Mini-D-Sub-Anschluss



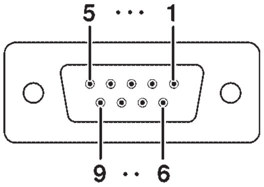
| | RGB-Eingang | Komponenteneingang |
|---|---|---|
| 1. | Videoeingang (rot) | PR (CR) |
| 2. | Videoausgang (grün/Sync. auf grün) | Y |
| 3. | Videoausgabe (blau) | PB (CB) |
| 4. | Nicht angeschlossen | Nicht angeschlossen |
| 5. | Nicht angeschlossen | Nicht angeschlossen |
| 6. | Erde (rot) | Erde (PR) |
| 7. | Erde (grün/Sync. auf grün) | Erde (Y) |
| 8. | Erde (blau) | Erde (PB) |
| 9. | Nicht angeschlossen | Nicht angeschlossen |
| 10. | GND | Nicht angeschlossen |
| 11. | Nicht angeschlossen | Nicht angeschlossen |
| 12. | Bi-direktionale Daten | Nicht angeschlossen |
| 13. | Horizontal-Sync-Signal: TTL-Pegel | Nicht angeschlossen |
| 14. | Vertikal-Sync-Signal: TTL-Pegel | Nicht angeschlossen |
| 15. | Datentakt | Nicht angeschlossen |

**RS-232-Anschluss:** 9-pol. Mini-DIN-Anschluss

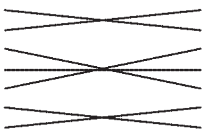


| Pin-Nr. | Signal | Name | E/A | Referenz |
|---|---|---|---|---|
| 1 | | | | Nicht angeschlossen |
| 2 | RD | Daten empfangen | Eingang | Interner Stromkreisanschluss |
| 3 | SD | Daten senden | Ausgang | Interner Stromkreisanschluss |
| 4 | | | | Nicht angeschlossen |
| 5 | SG | Signalerde | | Interner Stromkreisanschluss |
| 6 | | | | Nicht angeschlossen |
| 7 | RS | Anforderung zur Ausgabe | | Angeschlossen mit CS in interner Verbindung |
| 8 | CS | Frei zur Ausgabe | | Angeschlossen mit RS in interner Verbindung |
| 9 | | | | Nicht angeschlossen |

**RS-232C Kabel empfohlene Verbindung:** 9-pol. D-Sub-Anschluss

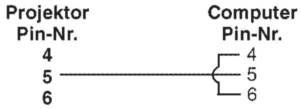


| Pin-Nr. | Signal | Pin-Nr. | Signal |
|---|---|---|---|
| 1 | CD | 1 | CD |
| 2 | RD | 2 | RD |
| 3 | SD | 3 | SD |
| 4 | ER | 4 | ER |
| 5 | SG | 5 | SG |
| 6 | DR | 6 | DR |
| 7 | RS | 7 | RS |
| 8 | CS | 8 | CS |
| 9 | CI | 9 | CI |

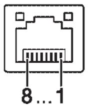


Hinweis

- Je nach verwendetem Steuergerät ist es unter Umständen erforderlich, Pin 4 und Pin 6 am Steuergerät (z.B. am Computer) anzuschließen.

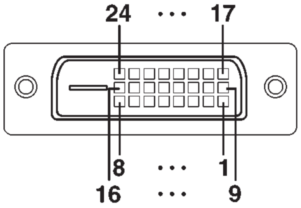


**LAN-Anschluss :** 8-pol. RJ-45 Modularanschluss



| Pin-Nr. | Signal | Pin-Nr. | Signal |
|---|---|---|---|
| 1 | TX+ | 5 | |
| 2 | TX– | 6 | RX– |
| 3 | RX+ | 7 | |
| 4 | | 8 | |

## DVI-Digital Anschluss (INPUT 3)

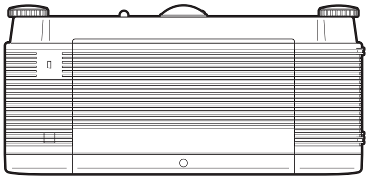


| Pin-Nr. | Signal | Pin-Nr. | Signal |
|---|---|---|---|
| 1 | T.M.D.S.-Daten 2– | 17 | T.M.D.S.-Daten 0– |
| 2 | T.M.D.S.-Daten 2+ | 18 | T.M.D.S.-Daten 0+ |
| 3 | T.M.D.S.-Daten 2-Schutz | 19 | T.M.D.S.-Daten 0-Schutz |
| 4 | Nicht angeschlossen | 20 | Nicht angeschlossen |
| 5 | Nicht angeschlossen | 21 | Nicht angeschlossen |
| 6 | DDC-Takt | 22 | T.M.D.S.-Taktschutz |
| 7 | DDC-Daten | 23 | T.M.D.S.-Takt+ |
| 8 | Nicht angeschlossen | 24 | T.M.D.S.-Takt– |
| 9 | T.M.D.S.-Daten 1– | | |
| 10 | T.M.D.S.-Daten 1+ | | |
| 11 | T.M.D.S.-Daten 1-Schutz | | |
| 12 | Nicht angeschlossen | | |
| 13 | Nicht angeschlossen | | |
| 14 | Stromversorgung +5 V | | |
| 15 | Erde | | |
| 16 | Zündkerzenerkennung | | |

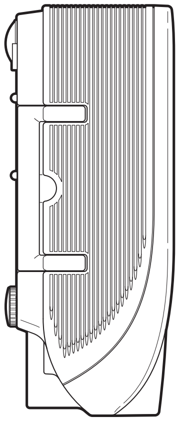
# ABMESSUNGEN

**Einheiten: Zoll (mm)**

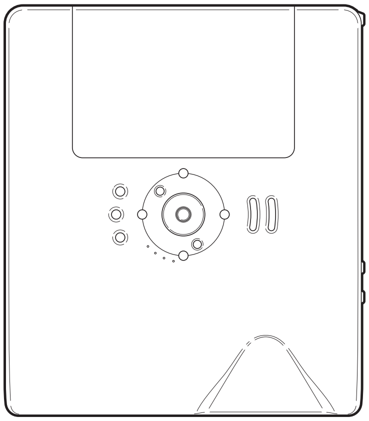
**Ansicht von hinten**



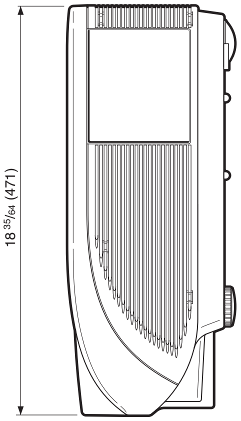
**Ansicht von der Seite**



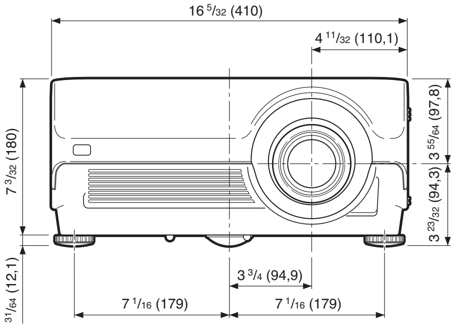
**Ansicht von oben**



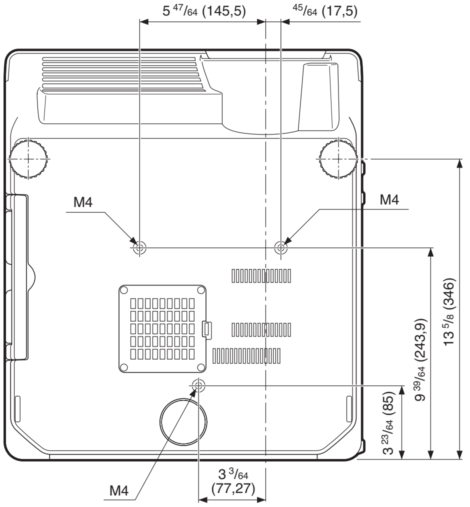
**Ansicht von der Seite**



**Ansicht von vorne**


16 5/32 (410)
4 11/32 (110,1)
7 3/32 (180)
3 55/64 (97,8)
3 23/32 (94,3)
31/64 (12,1)
3 3/4 (94,9)
7 1/16 (179)
7 1/16 (179)

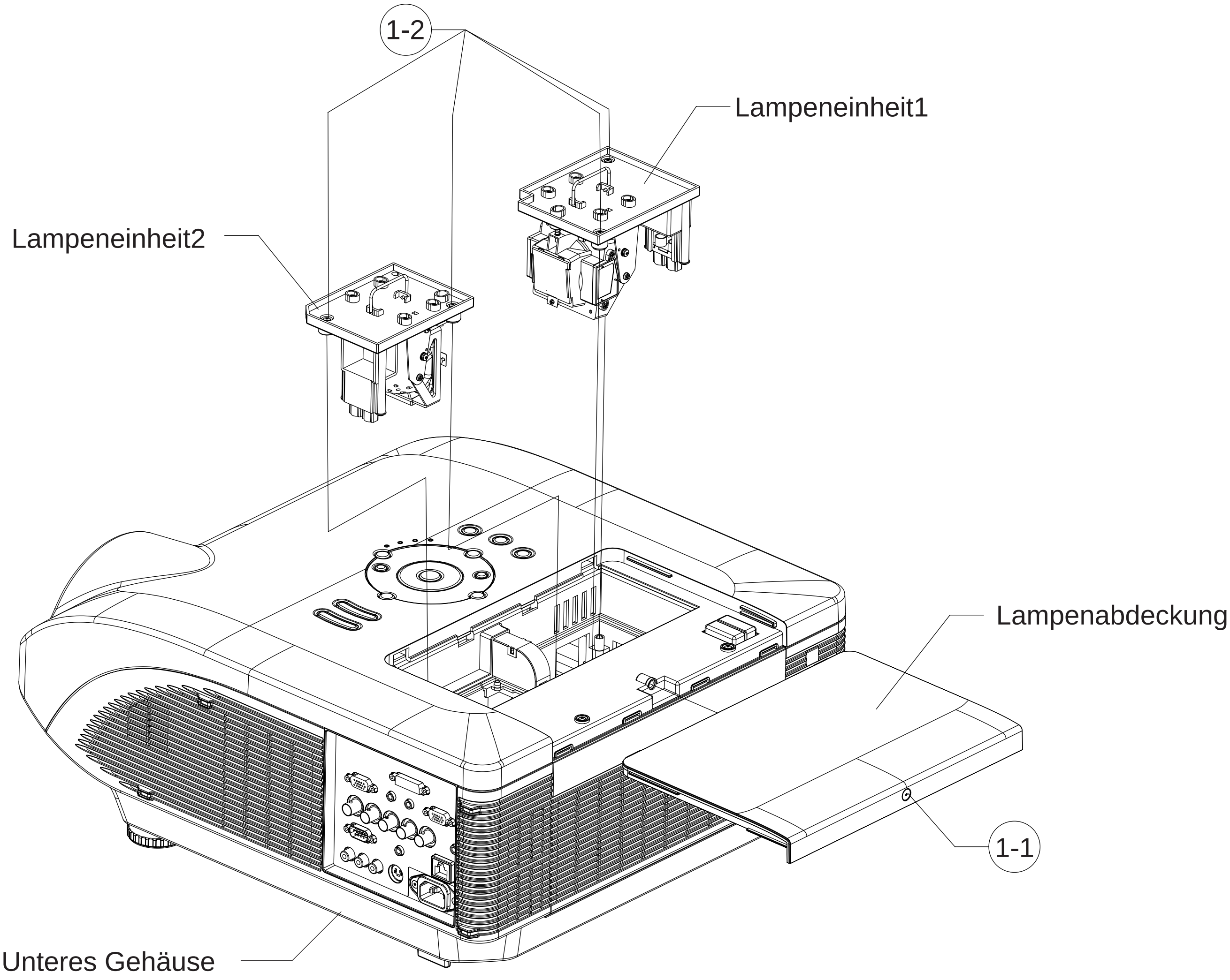
**Ansicht von unten**


5 47/64 (145,5)
45/64 (17,5)
M4
M4
9 39/64 (243,9)
13 5/8 (346)
3 23/64 (85)
3 3/64
(77,27)
M4

# ENTFERNEN DER HAUPTTEILE

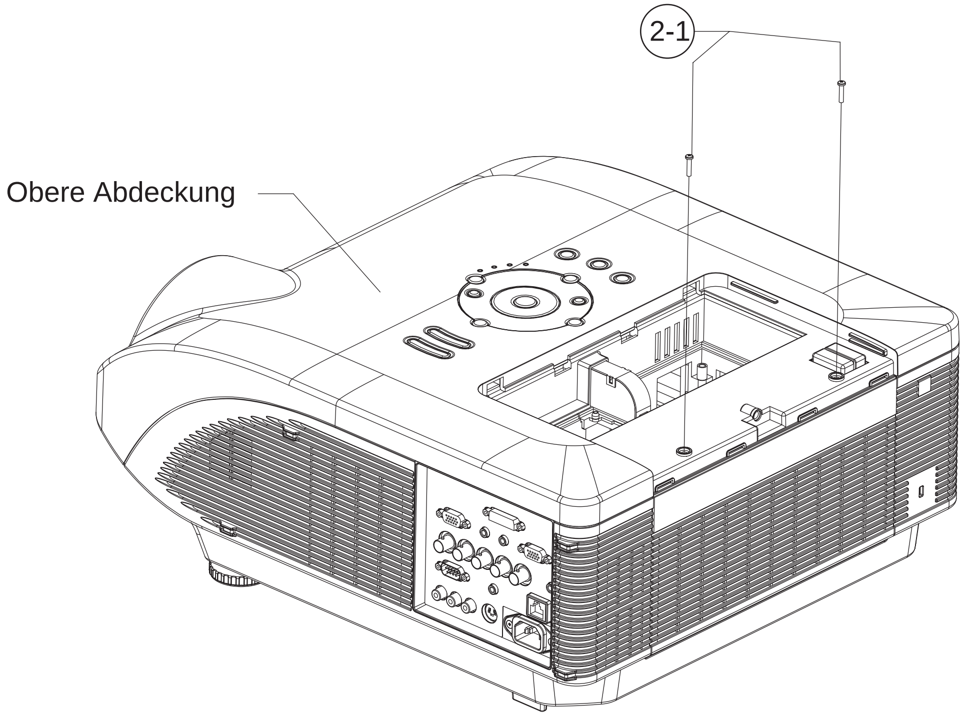
## 1. Entfernung der Lampeneinheit

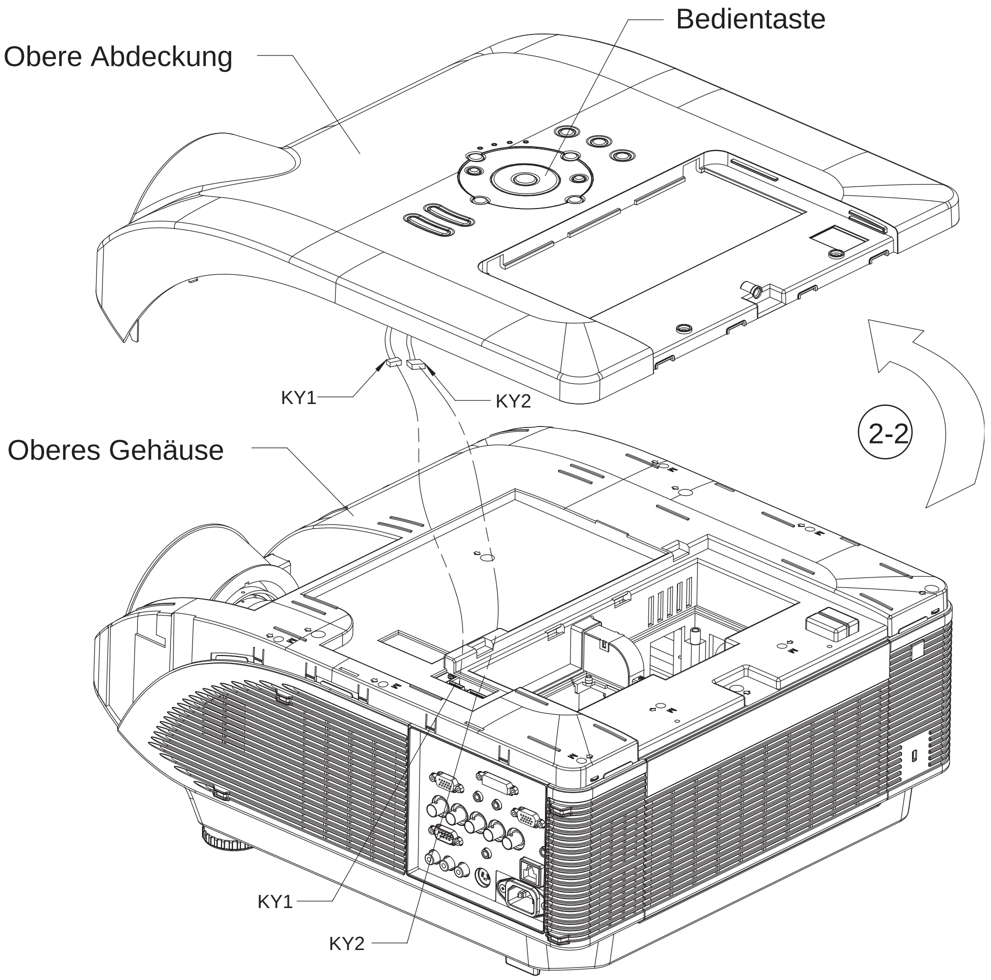
1-1. Die Schraube an der Lampenabdeckung losdrehen, um die Lampenabdeckung abzunehmen.
1-2. Die vier Schrauben an den Lampeneinheiten losdrehen, um sie zu entfernen.


1-2
Lampeneinheit1
Lampeneinheit2
Lampenabdeckung
1-1
Unteres Gehäuse

## 2. Entfernung der oberen Abdeckung

2-1. Die beiden Schrauben an der oberen Abdeckung losdrehen.
2-2. Die Hinterseite der oberen Abdeckung langsam anheben, und die Bedientastenanschlüsse (KY1 und KY2) abtrennen. Die obere Abdeckung heraufziehen.

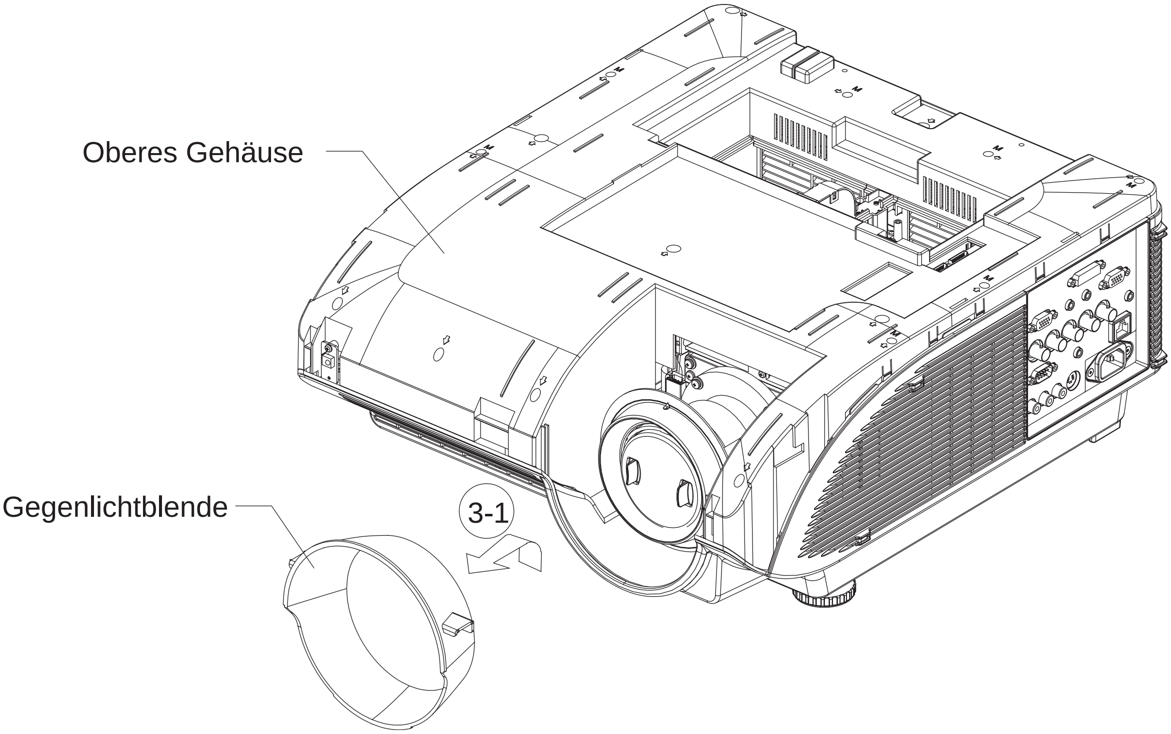

2-1
Obere Abdeckung


Bedientaste
Obere Abdeckung
KY1
KY2
2-2
Oberes Gehäuse
KY1
KY2

Für XG-PH50X-NL sind die Objektiv-Ausbauarbeiten (Abschnitte 3 - 6) nicht erforderlich.

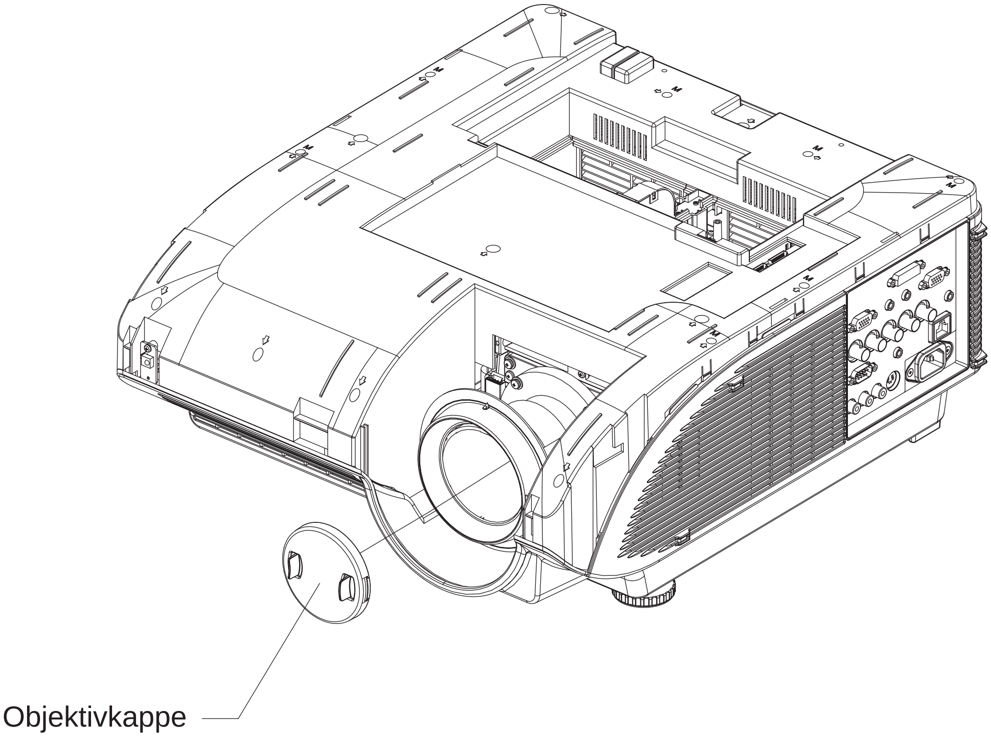
## 3. Entfernung der Gegenlichtblende

3-1. Die Gegenlichtblende langsam anheben, bis sie nach vorne bewegt werden kann; danach die Gegenlichtblende nach vorne bewegen, um sie zu entfernen.


Oberes Gehäuse
Gegenlichtblende
3-1

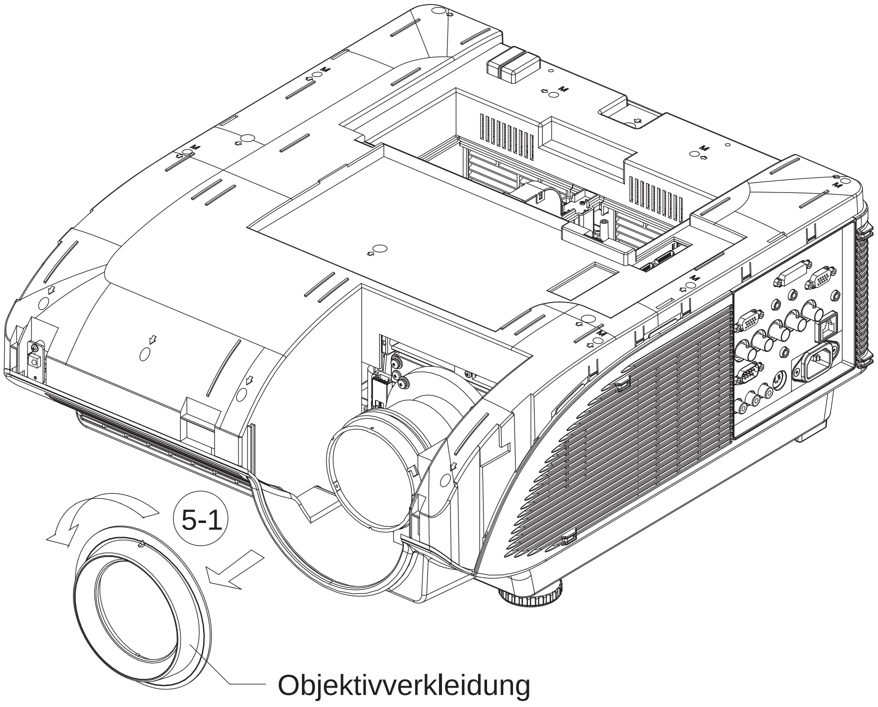
## 4. Entfernung der Objektivkappe

4-1. Die Objektivkappe abnehmen.


Objektivkappe

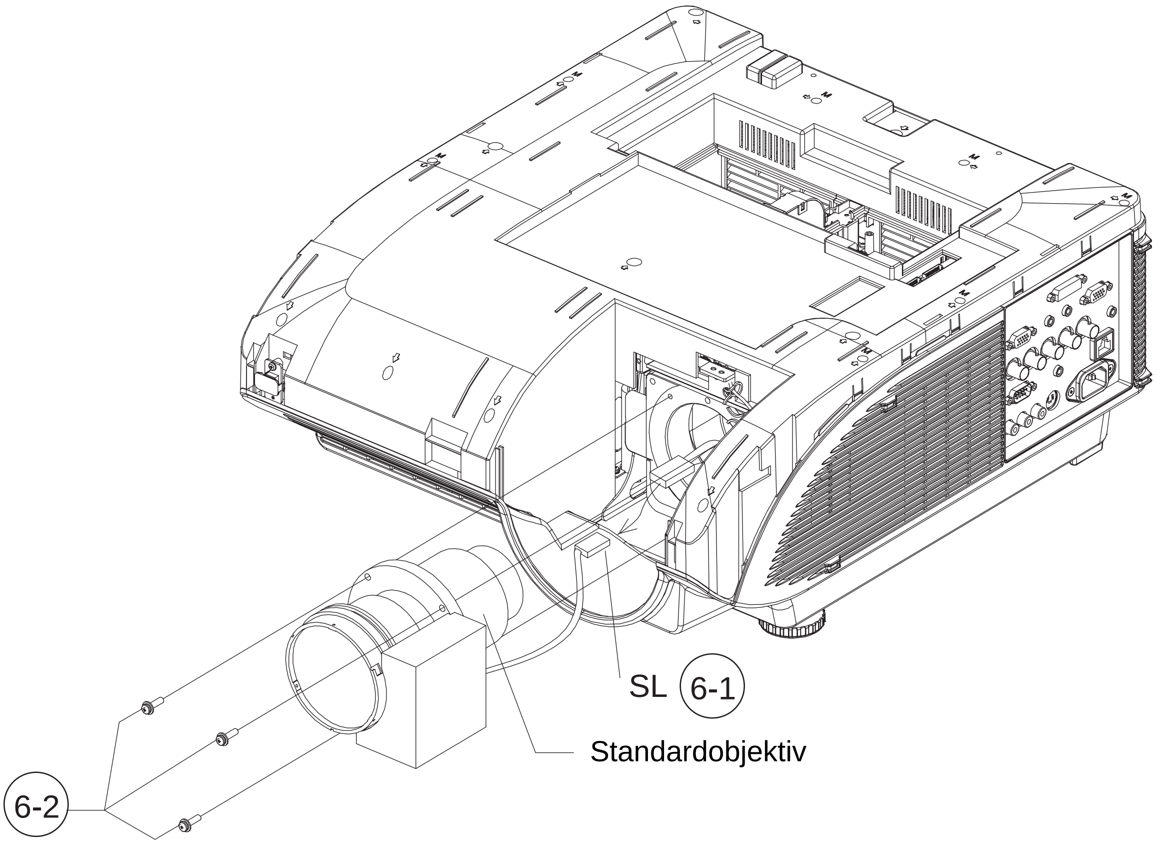
## 5. Entfernung der Objektivverkleidung

5-1. Die Objektivverkleidung entgegen dem Uhrzeigersinn drehen, um sie abzunehmen.


5-1
Objektivverkleidung

## 6. Entfernung des Standardobjektivs

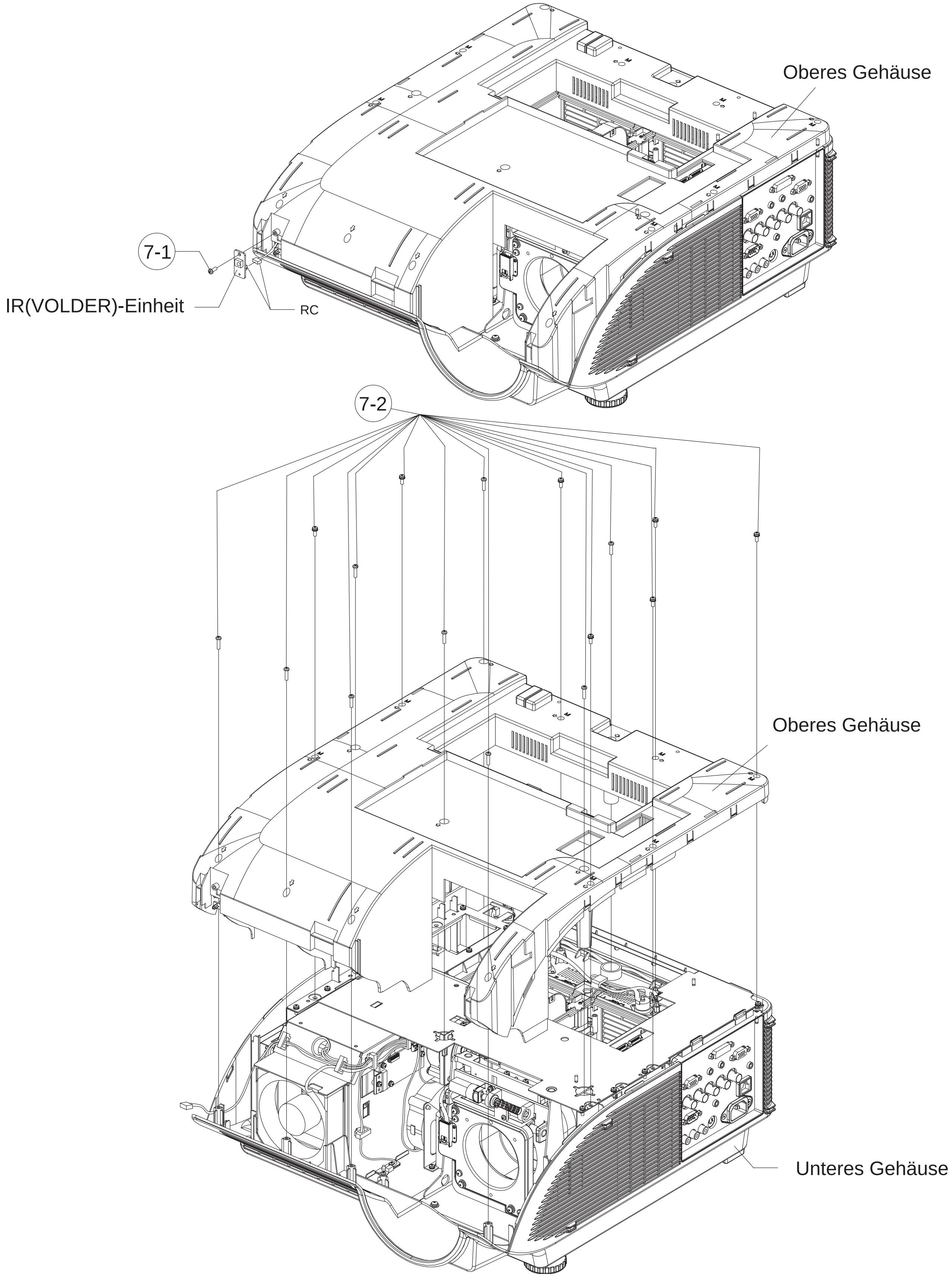
6-1. Den Standardobjektivanschluss (SL) abtrennen.
6-2. Die drei Schrauben am Standardobjektiv losdrehen, um es abzunehmen.


SL
6-1
Standardobjektiv
6-2

# 7. Entfernung des oberen Gehäuses

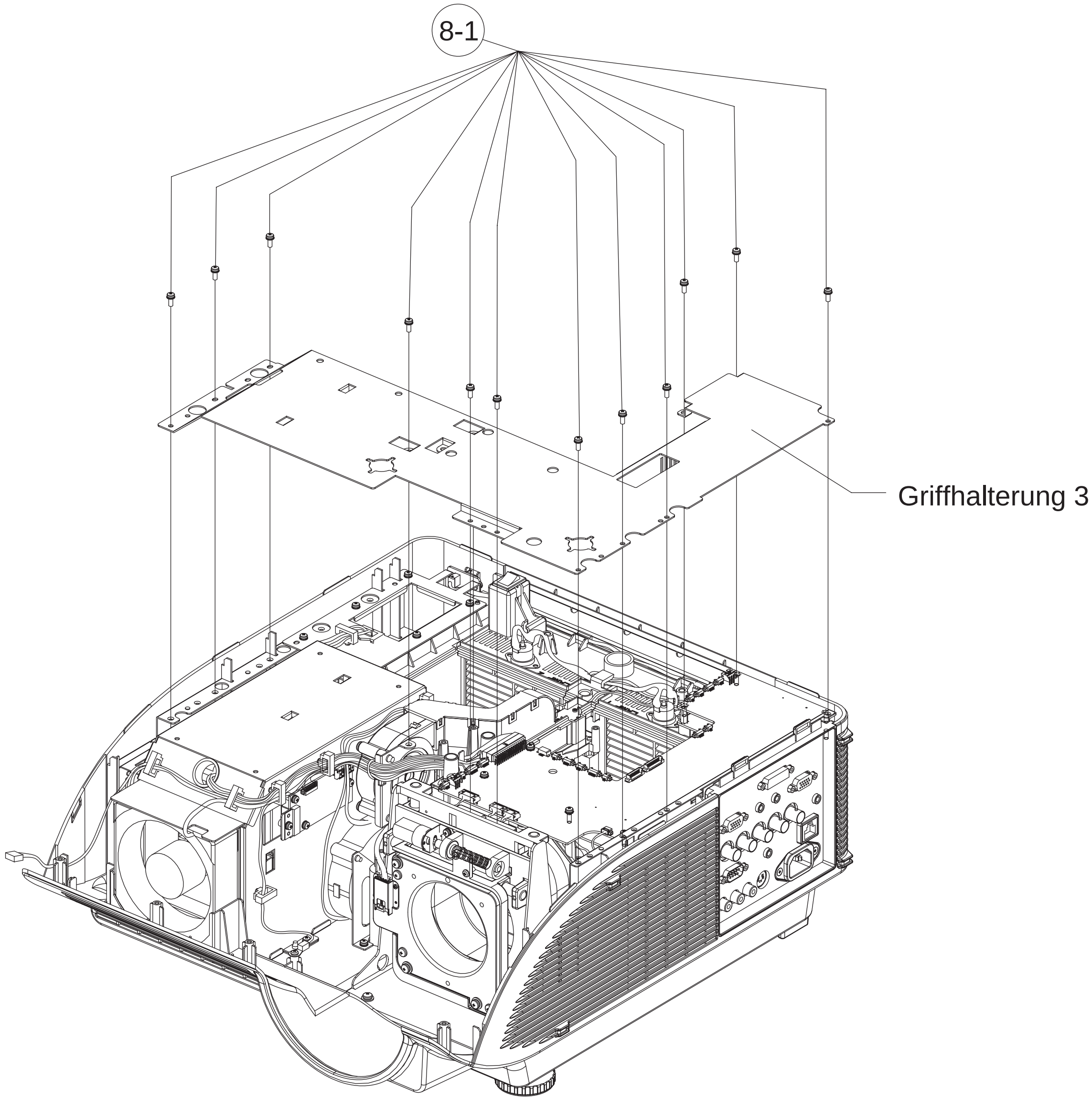
7-1. Die Schraube an der IR(VOLDER)-Einheit losdrehen, um sie abzunehmen; danach den Anschluss für die IR(VOLDER)-Einheit abtrennen.

7-2. Die sechzehn Schrauben am oberen Gehäuse losdrehen, um es heraufzuziehen.


Oberes Gehäuse
7-1
IR(VOLDER)-Einheit
RC
7-2
Oberes Gehäuse
Unteres Gehäuse

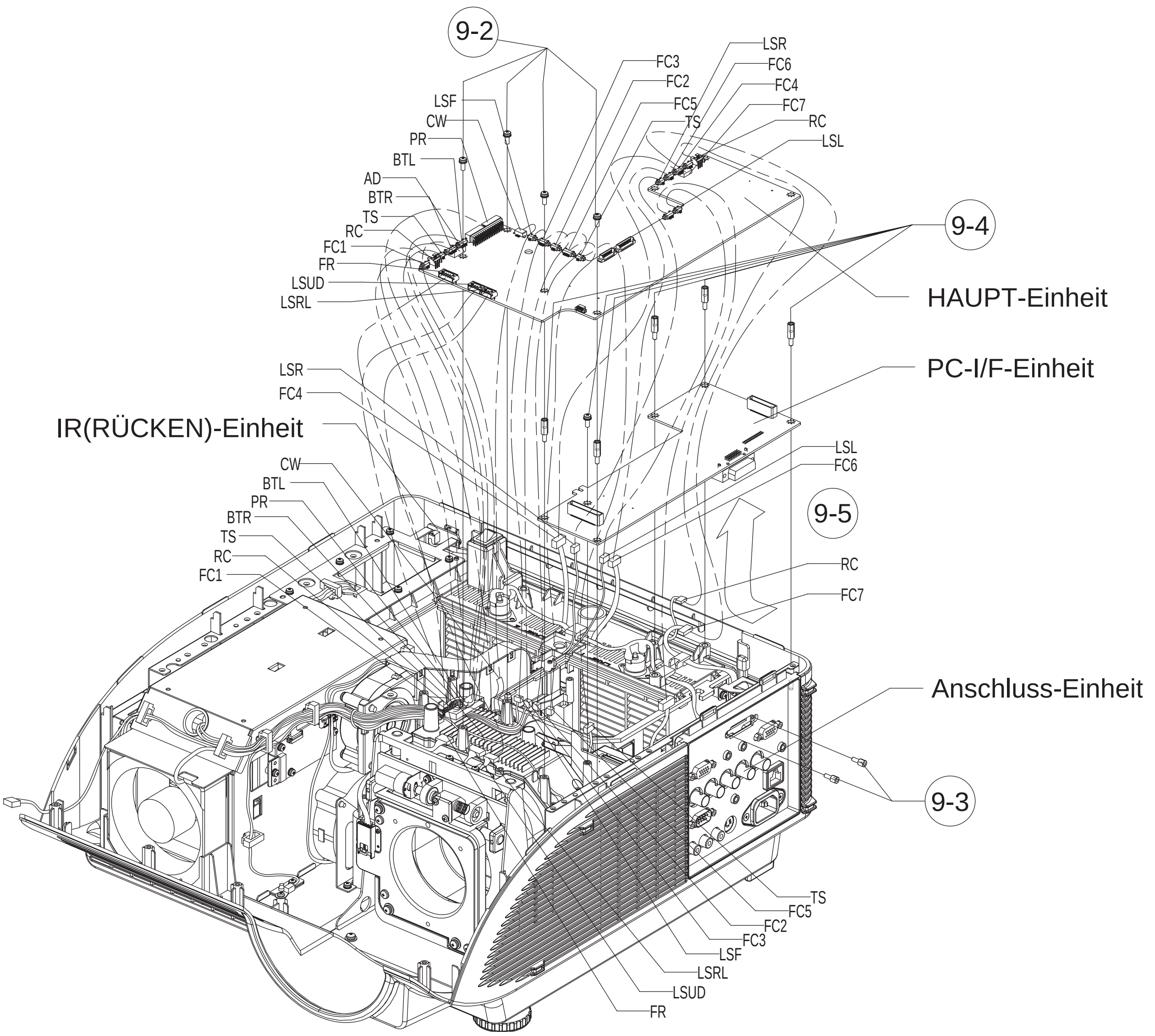
## 8. Entfernung der Griffhalterung 3

8-1. Die zwölf Schrauben an der Griffhalterung 3 losdrehen, um die Griffhalterung 3 abzunehmen.


8-1
Griffhalterung 3

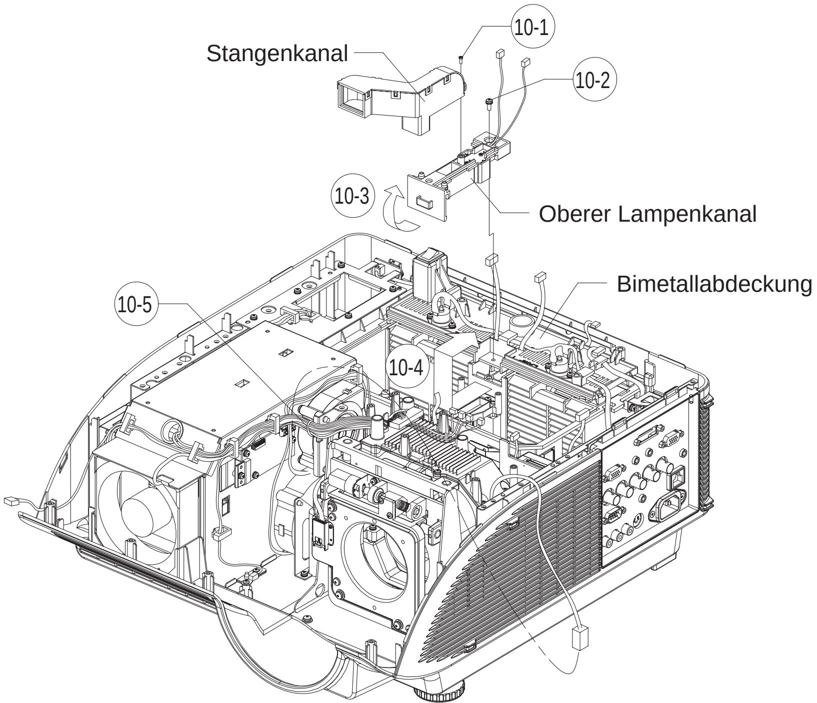
# 9. Entfernung der Leiterplatten-Baugruppen

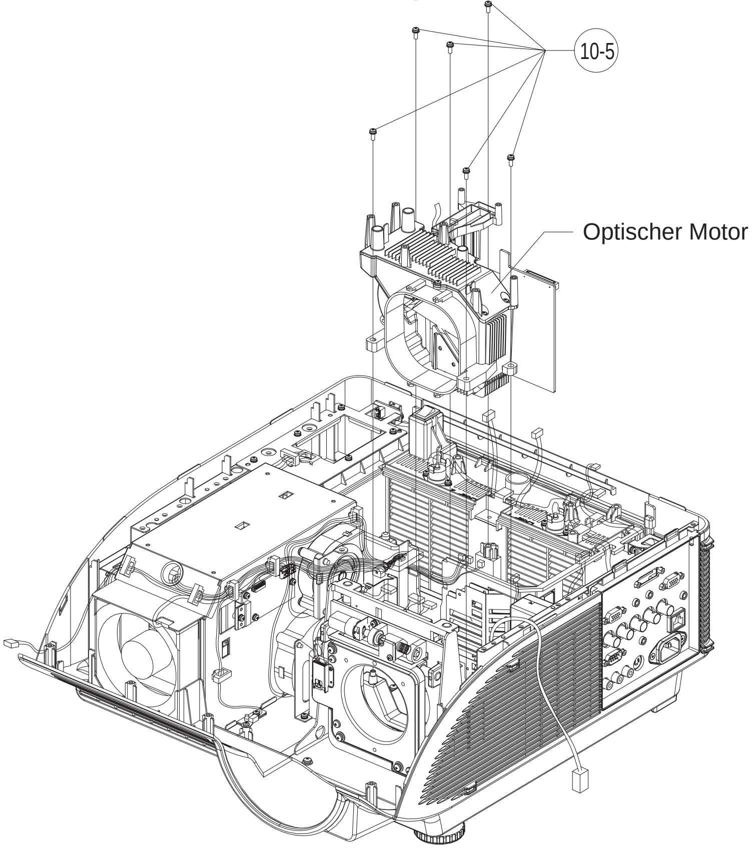
9-1. All die Anschlüsse von HAUPT-Einheit abtrennen.
9-2. Die vier Schrauben an HAUPT-Einheit losdrehen. HAUPT-Einheit von der PC-I/F-Einheit abnehmen.
9-3. Die beiden Distanzstücke von der PC-I/F-Einheit entfernen.
9-4. Die fünf Schrauben entfernen und die Schraube losdrehen.
9-5. Die PC-I/F-Einheit von der Anschluss-Einheit abtrennen, und anschließend die PC-I/F-Einheit abnehmen.


9-2
LSR
FC3
FC6
FC2
FC4
LSF
FC5
FC7
CW
TS
RC
PR
LSL
BTL
AD
BTR
TS
9-4
RC
FC1
FR
LSUD
HAUPT-Einheit
LSRL
LSR
PC-I/F-Einheit
FC4
IR(RÜCKEN)-Einheit
LSL
FC6
CW
BTL
PR
9-5
BTR
TS
RC
RC
FC1
FC7
Anschluss-Einheit
9-3
TS
FC5
FC2
FC3
LSF
LSRL
LSUD
FR

# 10.Entfernung des optischen Motors

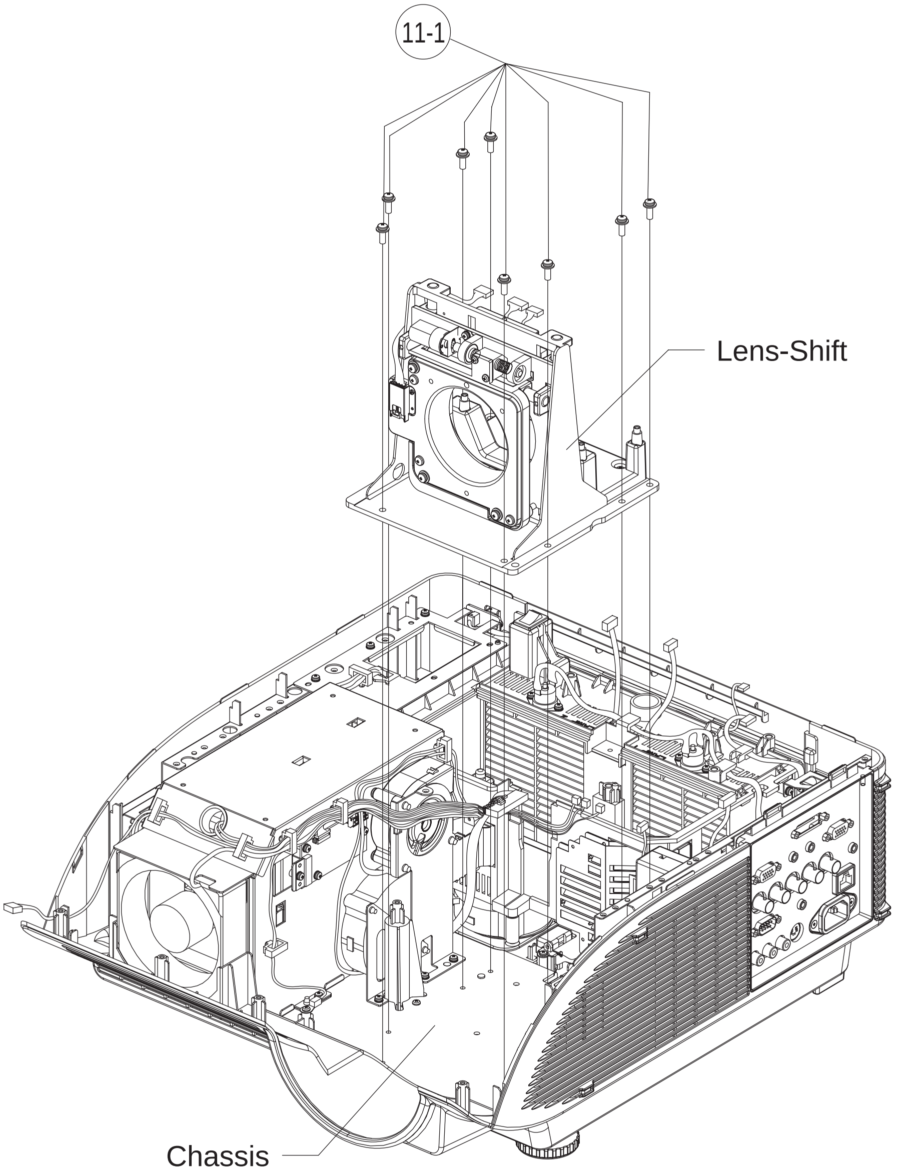
10-1. Die Schraube am Stangenkanal losdrehen, um ihn abzunehmen.
10-2. Die Schraube am oberen Lampenkanal losdrehen.
10-3. Die Vorderseite der oberen Lampenkanal aushaken, um diesen abzunehmen.
10-4. Die Bimetallabdeckung schieben, um sie abzunehmen.
10-5. Den Kabelbinder loslasse, und anschließend den linken Lautsprecheranschluss abtrennen. Die sechs Schrauben am optischen Motor losdrehen, und anschließend den optischen Motor abheben.


10-1
Stangenkanal
10-2
10-3
Oberer Lampenkanal
Bimetallabdeckung
10-5
10-4


10-5
Optischer Motor

## 11.Entfernung des Lens-Shifts

11-1. Die acht Schrauben am Lens-Shift losdrehen, und anschließend den Lens-Shift abheben.

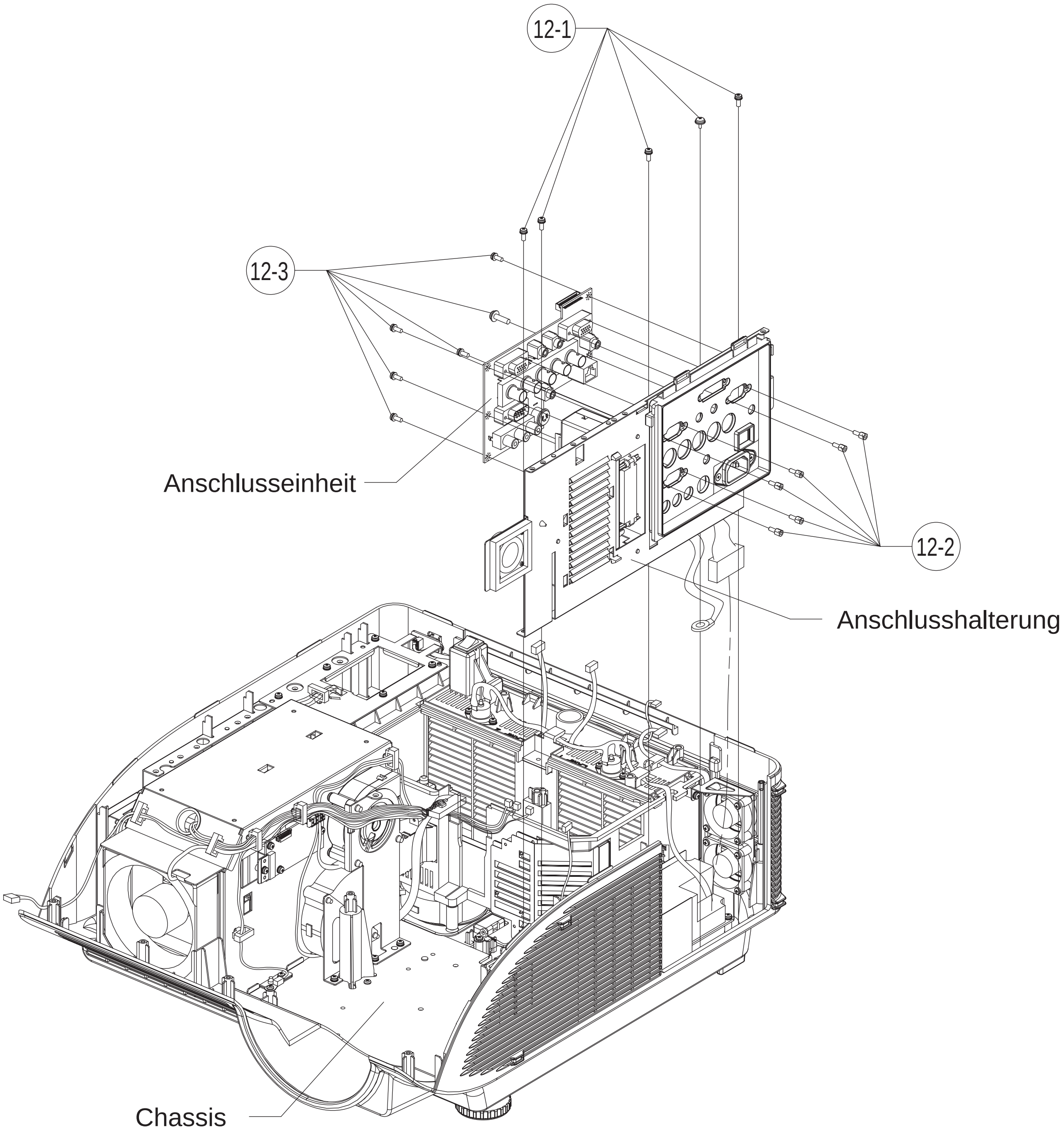

11-1
Lens-Shift
Chassis

## 12.Entfernung der Anschlusseinheit

12-1.Die fünf Schrauben an der Anschlusshalterung losdrehen; danach sie anheben, um die Netzanschlussbuchse abzutrennen.

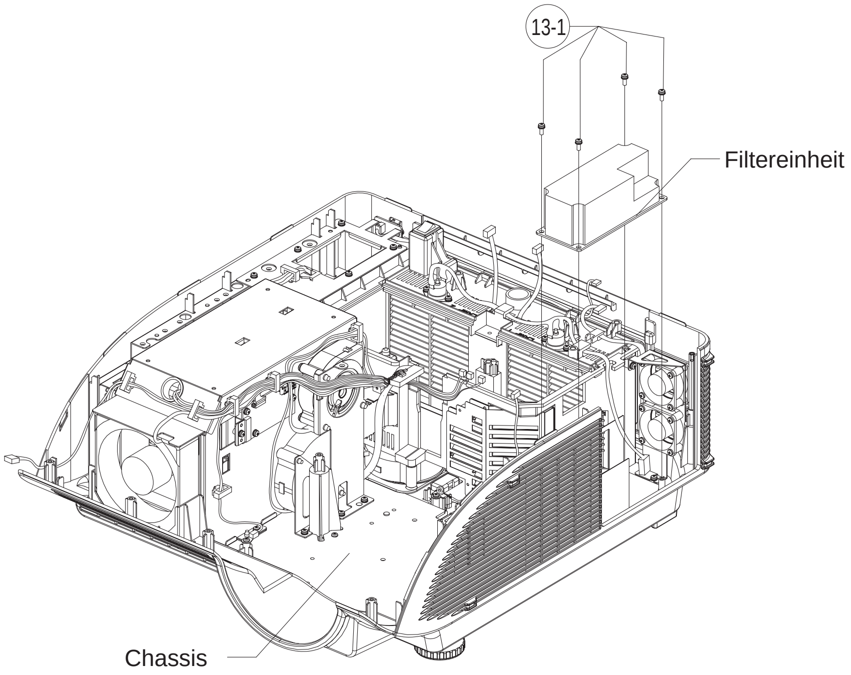
12-2.Die sechs Distanzstücke an der Anschlusseinheit entfernen.

12-3.Die sechs Schrauben an der Anschlusseinheit losdrehen, um sie anzunehmen.


12-1
12-3
Anschlusseinheit
12-2
Anschlusshalterung
Chassis

## 13.Entfernung der Filtereinheit

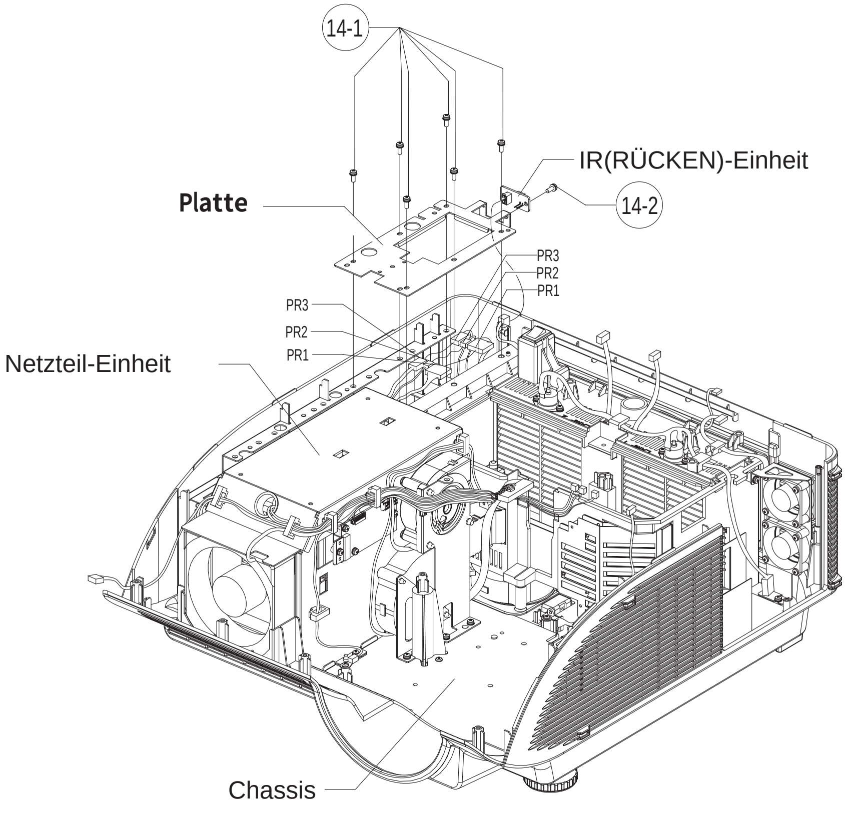
13-1.All die Anschlüsse von der Filtereinheit abtrennen. Die vier Schrauben an der Filtereinheit losdrehen, um sie abzunehmen.


13-1
Filtereinheit
Chassis

## 14.Entfernung der IR(RÜCKEN)-Einheit

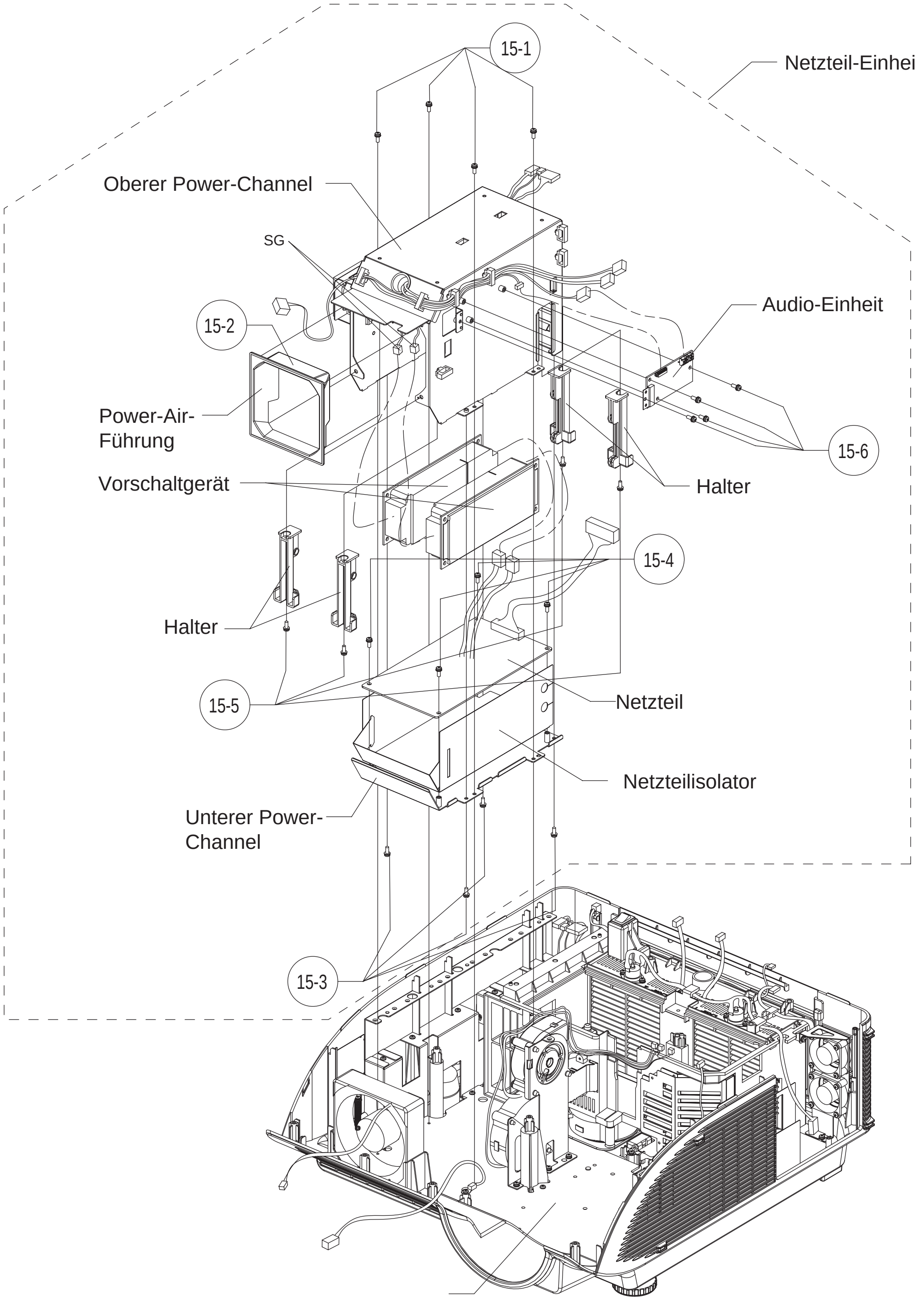
14-1.All die Anschlüsse von der Netzteil-Einheit abtrennen. Die sechs Schrauben an der Platte losdrehen, um sie anzunehmen.

14-2.Die Schraube an der IR(RÜCKEN)-Einheit losdrehen, um die IR(RÜCKEN)-Einheit abzunehmen.


14-1
IR(RÜCKEN)-Einheit
Platte
14-2
PR3
PR2
PR1
PR3
PR2
PR1
Netzteil-Einheit
Chassis

# 15.Entfernung von Netzteil-Einheit und Audio-Einheit

15-1. Die vier Schrauben an der Netzteil-Einheit losdrehen.
15-2. Die Power-Air-Führung vom oberen Power-Channel abnehmen.
15-3. Die vier Schrauben am unteren Power-Channel losdrehen, und anschließend die beiden Netzanschlüsse PR abtrennen.
15-4. Die vier Schrauben am Netzteil losdrehen, um es abzunehmen.
15-5. Die vier Schrauben an den Haltern losdrehen, und anschließend die Signalanschlüsse SG abtrennen.
15-6. Die vier Schrauben an der Audio-Einheit losdrehen, um sie abzunehmen.

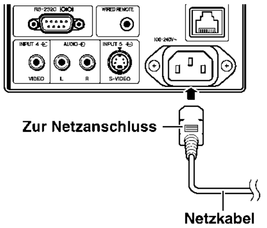

15-1
Netzteil-Einheit
Oberer Power-Channel
SG
Audio-Einheit
15-2
Power-Air-Führung
15-6
Vorschaltgerät
Halter
15-4
Halter
15-5
Netzteil
Netzteilisolator
Unterer Power-Channel
15-3

# RÜCKSTELLEN DES LAMPENBETRIEBSZEIT-TIMERS

- **Rückstellung des Lampen-Timers**
  Den Lampen-Timer nach dem Lampenaustausch zur ü ckzustellen.

**Info**

- Stellen Sie sicher, dass Sie den Lampen-Timer nur nach dem Austausch der Lampe zurücksetzen. Wenn Sie den Lampen-Timer zurückstellen und dieselbe Lampe weiterhin verwenden, könnte die Lampe beschädigt werden oder explodieren.



**1** **Das Netzkabel anschließen.**
- Das Netzkabel am Netzanschluss des Projektors anschließen.

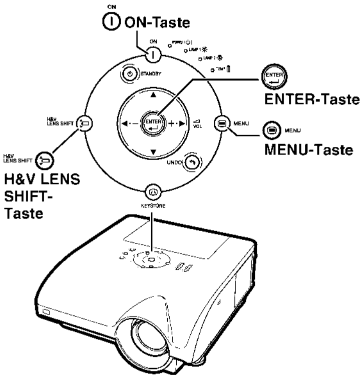
**2** **Den Lampen-Timer zurückstellen.**

**Für Lampe 1**

- Zum Rücksetzen des Lampen-Timers für Lampeneinheit AN-PH50LP1 die beiden Tasten MENU und ENTER gleichzeitig gedrückt halten und zusätzlich die Taste ON am Projektor drücken.
- „LAMP1 100%“ erscheint und zeigt damit an, dass der Lampen-Timer zurückgestellt wurde.

**Für Lampe 2**

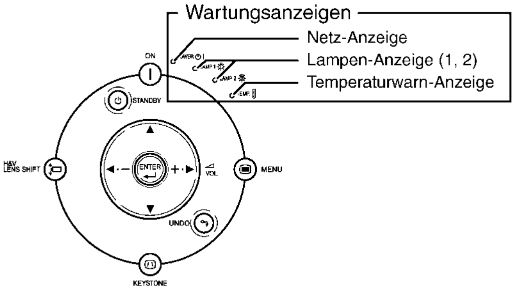
- Zum Rücksetzen des Lampen-Timers für Lampeneinheit AN-PH50LP2 die beiden Tasten MENU und ENTER gleichzeitig gedrückt halten und zusätzlich die Taste ON am Projektor drücken.
- „LAMP2 100%“ erscheint und zeigt damit an, dass der Lampen-Timer zurückgestellt wurde.



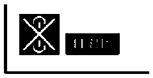
### Lampe

- ■ Es wird empfohlen, die Lampeneinheit (optionales, AN-PH50LP1 und AN-PH50LP2) auszutauschen, wenn die Lampen-Lebensdauer 5 % oder weniger beträgt, oder wenn Sie eine deutliche Verschlechterung der Bild- und Farbqualität feststellen. Die Lampen-Lebensdauer (Prozentsatz) kann auf der Bildschirmanzeige überprüft werden.
- ■ Erwerben Sie über einen Sharp-Projektor-Händler oder Kundendienstbetrieb in Ihrer Nähe eine Lampeneinheit des Typs AN-PH50LP1 und AN-PH50LP2.

- ■ **Die Warnleuchten am Projektor weisen auf Fehlfunktionen im Projektor hin.**
- ■ **Falls ein Problem auftritt, leuchtet entweder die Temperaturwarn-Anzeige oder die Lampen-Anzeige rot auf und der Projektor wird in den Standby-Modus geschaltet. Nachdem der Projektor in den Standby-Modus geschaltet worden ist, den unten aufgeführten Schritten folgen.**



**Über die Temperaturwarn-Anzeige**



Wenn die Temperatur im Inneren des Projektors aufgrund blockierter Lüftungsöffnungen oder wegen Problemen bei der Aufstellung ansteigt, leuchtet „[illegible]“ in der unteren linken Ecke des Bildes auf. Wenn die Temperatur weiter ansteigt, schaltet sich die Lampe aus und die Temperaturwarn-Anzeige blinkt; der Kühlventilator dreht sich für weitere 90 Sekunden und anschließend wird der Projektor in den Standby-Modus geschaltet. Nachdem „[illegible]“ erscheint, führen Sie auf jeden Fall die Maßnahmen aus wie auf Seite **92** beschrieben.

| Wartungsanzeige | | | Problem | Ursache | Mögliche Lösung |
|---|---|---|---|---|---|
| | Normal | Anormal | | | |
| Temperaturwarn-Anzeige Warnanzeige | Aus | Rot leuchtend (Standby) | Die interne Temperatur ist ungewöhnlich hoch. | • Blockierter Belüftungseinlass | • Stellen Sie den Projektor so auf, dass er ordnungsgemäß belüftet wird. |
| | | | | • Defekter Lüfter<br>• Fehler im internen Kreislauf<br>• Verstopfter Belüftungseinlass<br>• Grün blinkt, wenn die Lampe aufwärmt. | • Bringen Sie den Projektor zu einem autorisierten Sharp-Projektor-Händler oder Kundendienstbetrieb in Ihrer Nähe.<br>• Reinigen Sie die Luftaustritts- und Einsaugöffnungen. |
| Lampen-Anzeige (1, 2) | Grün leuchtend (Grün blinkt, wenn die Lampe aufwärmt.) | Rot leuchtend | Die Lampe leuchtet nicht. | • Die Lampe wird anormal ausgeschaltet. | • Das Netzkabel vom Netzanschluss abtrennen, und stecken ihn erneut ein. |
| | | | Wechseln Sie die Lampe. | • Die verbleibende Lampen-Lebensdauer beträgt 5 % oder weniger. | • Tauschen Sie die Lampe vorsichtig aus.<br>• Bringen Sie den Projektor zu einem autorisierten Sharp-Projektor-Händler oder Kundendienstbetrieb in Ihrer Nähe.<br>• Gehen Sie beim Austauschen der Lampe sehr vorsichtig vor. |
| | | Rot leuchtend (Standby) | Die Lampe leuchtet nicht. | • Durchgebrannte Lampe<br>• Fehler im Lampenkreislauf | |
| Netz-Anzeige | Grün leuchtend / Rot leuchtend | Rot blinkt | Die Netz-Anzeige blinkt bei eingeschaltetem Projektor rot auf. | • Die Lüftungsabdeckung ist geöffnet | • Befestigen Sie die Abdeckungen sicher.<br>• Sollte die Netzanzeige auch bei korrekt eingesetzter Lüftungsabdeckung blinken, wenden Sie sich bitte an Ihren nächsten autorisierten Sharp-Projektor-Händler oder an unseren Kundendienst. |

**Info**

- Wenn die Temperaturwarn-Anzeige blinkt und der Projektor in den Standby-Modus geschaltet wird, leuchtet die Temperaturwarn-Anzeige auf. Prüfen Sie, ob die Lüftungsöffnungen verstopft oder blockiert sind und versuchen Sie dann, das Gerät wieder einzuschalten. Warten Sie bis der Projektor vollständig abgekühlt ist, bevor Sie das Netzkabel anschließen und das Gerät wieder einschalten. (Mindestens 10 Minuten.)
- Wenn die Stromversorgung in Folge eines Stromausfalls oder aus anderen Gründen während der Verwendung des Projektors kurzzeitig unterbrochen wird, leuchtet die Lampen-Anzeige möglicherweise rot auf, und die Lampe bleibt ausgeschaltet. Ziehen Sie in diesem Fall das Netzkabel vom Netzanschluss abtrennen, setzen Sie ihn wieder ein, und schalten Sie den Projektor wieder ein.
- Ziehen Sie nach dem Aktivieren des Standby-Modus nicht den Netzstecker, solange der Projektor noch läuft. Der Lüfter läuft ca. 90 Sekunden nach.

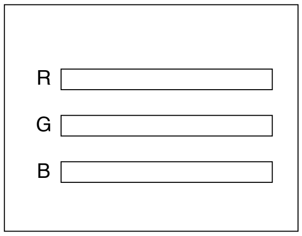
# ELEKTRISCHE EINSTELLUNG

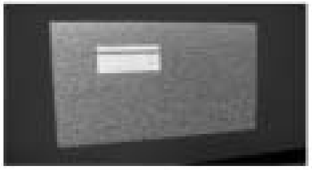
- Die Stromversorgung einschalten (Lampe eingeschaltet), und zur Alterung für 15 Minuten warten.
- Mit Hilfe von S3602 (Takt-Schalter) auf der Hauptleiterplatte in den Einstellungsprozess-Modus umschalten. Wenn das obere Gehäuse S3602 bedeckt, die folgenden Tasten der Reihe nach drücken.

| | |
|---|---|
| Tastatur: | On -> Up -> Down -> Up -> Enter -> Enter -> Menu |
| Fernbedienung: | On Vol up -> Vol down -> Vol up -> Vol down -> Enter -> Enter -> Menu |

* Sie können auf die gleiche Weise den Werksmodus beenden.(Anderenfalls ist "EXIT" im Prozessmodus auszuwählen.)

- Mit der Taste DOWN oder UP die einzustellende Gruppe auswählen, und per Druck auf die Taste ENTER auf der Fernbedienung oder Tastatur den Einstellgegenstand eingeben.
- Mit der Taste DOWN oder UP den Einstellgegenstand auswählen.
- Zur Einstellung die Taste LEFT oder RIGHT benutzen.
- Zum Zurückkehren vom Einstellgegenstand zur Einstellgruppe die Taste UNDO oder MENU benutzen.
- Mit der Taste MUTE das interne Prüfmuster und Eingangssignal ändern.

| Nr. | Einstellgegenstand | Einstellbedingungen | Einstellverfahren |
|---|---|---|---|
| 1 | **EEPROM wird initialisiert** | 1. Die Stromversorgung einschalten (die Lampe leuchtet auf), und das System für 15 Minuten aufwärmen.<br>2. Die folgende Gruppe und Objekt wählen.<br>Gruppe : SSS<br>Objekt : S2 | 1. S3602 drücken, um in den Prozessmodus umzuschalten.<br>2. Im Menü SSS den S2-Befehl ausführen.<br>* Mit dem S2-Befehl werden all die Schaltplatten außer der PC-Leiterplatte initialisiert.<br>(Hinweis:)<br>Da die PC-Schnittstelleneinheit mit S1 initialisiert wird, S1 nicht ausführen. Die PC-Schnittstelleneinheit ist bereits eingestellt.<br>Wenn die PC-Schnittstelleneinheit eingestellt werden muss (S1 wird versehentlich ausgeführt), diese entsprechend dem "Einstellverfahren für die PC-Schnittstelleneinheit" am Ende dieses Dokumentes einstellen.<br>3. Für ca. 30 Sekunden warten; wenn "INPUT1" erscheint, das Gerät ausschalten.<br>4. Nach dem Stoppen sämtlicher Ventilatoren das Gerät wieder einschalten. |
| 2 | **Schreiben der MAC-Adresse** | | 1. Einen Aufkleber lesen, auf dem die MAC-Adresse auf der Hauptleiterplatte geschrieben ist.<br>2. Über das 232C Serial-Kabel die MAC-Adresse schreiben. (Verfahren finden Sie im Anhang.) |
| 3 | **Einstellung von CW index** | 1. Signaleingang: 64-STEP-Farbbalkensignal<br>2. Die folgende Gruppe und Objekt wählen.<br>Gruppe : DLP<br>Objekt : CW-INDEX | 1. INPUT1 das Signal zuführen.<br>2. Ein Objekt auswählen und eine Einstellung machen, sodass die Gleichförmigkeit ausgeglichen ist.<br> |

| Nr. | Einstellgegenstand | Einstellbedingungen | Einstellverfahren |
|---|---|---|---|
| 4 | **Einstellung der DLP-Spannung** | 1. Den Spannungsbereich der DLP-Beschreibung lesen.<br>2. Die folgende Gruppe und Objekt wählen.<br>Gruppe : DLP<br>Objekt : DMD-BIN | 1. Entsprechend dem Rang, der gelesen worden ist (auf der Hauptleiterplatte), DMD-BIN einstellen.<br>Rang / Einstellwert<br>B / 0<br>C / 1<br>D / 2<br>E / 3<br>* Beim Auswechseln des DLP-Chips oder der PC-Leiterplatte die Einstellung durchführen. |
| 5-1 | **Video-Helligkeit Einstellung** | 1. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : VIDEO<br>Objekt : BRIGHT | 1. Überprüfen, dass der Wert 115 beträgt. |
| 5-2 | **Video-Kontrasteinstellung** | 1. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : VIDEO<br>Objekt : PICTURE-SUB | 1. Überprüfen, dass der Wert 96 beträgt. |
| 6 | **Einstellung der Komponenten-Cr/Cb-Abweichung (1)** | 1. INPUT1 das Farbdifferenzsignal (480i) zuführen.<br>Y-0%-Helligkeit.<br>Cb- und Cr-0%-Weiß-muster.<br>2. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : COMPO<br>Objekt : COMPO-AUTO | 1. Nach dem Signaleingang zur automatischen Einstellung COMPO-AUTO auswählen. |
| 7 | **Einstellung der Komponenten-Helligkeit** | 1. INPUT1 das Farbdifferenzsignal (480i) zuführen.<br>Y-0%-Helligkeit.<br>Cb- und Cr-0%-Weiß-muster.<br>2. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : COMPO<br>Objekt : G-BRIGHT | 1. Die Einstellung machen, sodass gewisse Bits im Bild fehlen.<br>* Beziehen Sie sich auf das Fotobild.<br> |
| 8 | **Einstellung der Komponenten-Cr/Cb-Abweichung (2)** | 1. INPUT1 das Farbdifferenzsignal (480i) zuführen.<br>Y-0%-Helligkeit.<br>Cb- und Cr-0%-Weiß-muster.<br>2. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : COMPO<br>Objekt : CR-OFFSET | 1. Den CR-OFFSET-Wert um 2 Punkte reduzieren. |
| 9 | **RGB-Weißbalance-Einstellung** | 1. INPUT1 das 50%-Graumustersignal (XGA, 60 Hz) zuführen.<br>2. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : DLP<br>Objekt : R1-GAIN (Red)<br>B1-GAIN (Blue) | 1. R-1 GAIN und B1-GAIN einstellen, sodass der x-Wert 290±3 beträgt und der y-Wert 310±3. |

| Nr. | Einstellgegenstand | Einstellbedingungen | Einstellverfahren |
|---|---|---|---|
| 10 | **sRGB-Weißbalance-Einstellung** | 1. Das Graumustersignal mit 50% des Amplitudenpegels von XGA 60 Hz zuführen.<br>2. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : DLP<br>Objekt : S-G1-GAIN (Green)<br>S-B1-GAIN (Blue) | 1. S-G1-GAIN und S-B1-GAIN einstellen, sodass der x-Wert 313±5 beträgt und der y-Wert 329±5. |
| 11 | **Video-Weißbalance-Einstellung** | 1. INPUT4 das 50%-Graumustersignal (NTSC, Burst-Signal) zuführen.<br>2. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : DLPV<br>Objekt : V-R1-GAIN (Red)<br>V-B1-GAIN (Blue) | 1. V-R1-GAIN und V-B1-GAIN einstellen, sodass der x-Wert 290±3 beträgt und der y-Wert 310±3. |
| 12 | **DTV-Weißbalance-Einstellung** | 1. INPUT1 das 50%-Graumustersignal (480i, Farbdifferenzsignal) zuführen.<br>2. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : DLPV<br>Objekt : C-R1-GAIN(Red)<br>C-B1-GAIN(Blue) | 1. V-R1-GAIN und V-B1-GAIN einstellen, sodass der x-Wert 290±3 beträgt und der y-Wert 310 ± 3. |
| 13 | **Ausgabe-Einstellwerte** | 1. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : SSS<br>Objekt : S4 (Nordamerika)<br>S3 (Europa/Asien/Australien)<br>S5 (Japan) | 1. Die folgenden Einstellungen machen.<br>PH50UX : S4 (für Nordamerika)<br>PH50X : S5 (für Japan)<br>Andere : S3 (für Europa/Asien/Australien) |

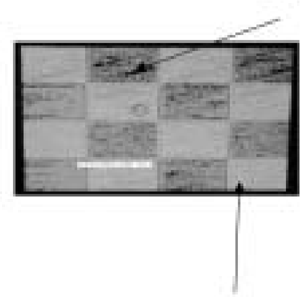
Für Referenz/Einstellung

|  | OSD-Sprache | Video-Pegel |
|---|---|---|
| S3 | Englisch | 0IRE |
| S4 | Englisch | 7.5IRE |
| S5 | Japanisch | 0IRE |

| Nr. | Einstellgegenstand | Einstellbedingungen | Einstellverfahren |
|---|---|---|---|
| 14 | **Lens-Shift Position** |  | 1. Die Lens-Shift Position bewegen.<br>Vertikal : Oberste Stellung<br>Horizontal : Mitte |
| 15 | **Die Stromversorgung ausschalten** |  |  |

## PC-Schnittstellen-Einstellverfahren

(Hinweis)
Da die PC-Schnittstelleneinheit mit S1 initialisiert wird, S1 nicht ausführen. Die PC-Schnittstelleneinheit ist bereits eingestellt.
Wenn die PC-Schnittstelleneinheit eingestellt werden muss (S1 wird versehentlich ausgeführt), diese entsprechend dem Folgenden einstellen.

| Nr. | Einstellgegenstand | Einstellbedingungen | Einstellverfahren |
|---|---|---|---|
| 1 | **EEPROM wird initialisiert** | 1. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : SSS<br>Objekt : S1 | 1. S3602 drücken, um in den Prozessmodus umzuschalten.<br>2. Im Menü SSS den S2-Befehl ausführen. (Durch S1 werden all die Inhalte von EEPROM initialisiert.) |
| 2 | **Einstellung der RGB-Farbton-wiedergabe** | 1. INPUT1 das Fenstermustersignal mit 92%-(0,64Vbw) und 0%-Signalen (XGA/60Hz) zuführen.<br>2. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : A/D<br>Objekt : AD-AUTO<br>* Wenn Sie nicht das 92%-Signal vorbereiten können<br>1. INPUT1 das Fenstermustersignal mit 100%-(0,7Vbw) und 0%-Signalen (XGA/60Hz) zuführen.<br>* Die “mute”-Taste wechselt zum Werksgamma. | 1. Nach dem Signaleingang zur automatischen Einstellung COMPO-AUTO auswählen.<br>1. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : A/D<br>Objekt : G-BRIGHT<br>2. Die Einstellung machen, sodass gewisse Bits im schwarzen Bereich des Bildes fehlen.<br><br>3. Die folgenden Gruppen und Positionen wählen:<br>Gruppe : A/D<br>Objekt : G-D<br>4. Die Einstellung machen, sodass gewisse Bits im weißen Bereich des Bildes fehlen.<br>5. Das folgende Objekt auswählen.<br>Objekt: R-BRIGHT<br>6. Die Einstellung machen, sodass gewisse Bits im schwarzen Bereich des Bildes fehlen.<br>7. Das folgende Objekt auswählen.<br>Objekt: R-D<br>8. Die Einstellung machen, sodass gewisse Bits im weißen Bereich des Bildes fehlen.<br>9. Das folgende Objekt auswählen.<br>Objekt: R-BRIGHT<br>10. Die Einstellung machen, sodass gewisse Bits im schwarzen Bereich des Bildes fehlen.<br>11. Das folgende Objekt auswählen.<br>Objekt: B-D<br>12. Die Einstellung machen, sodass gewisse Bits im weißen Bereich des Bildes fehlen. |

## Spezieller 232C-Befehl für Werk

**Schreiben der MAC-Adresse** (Schreiben)

Die folgenden 232C-Befehle der Reihe nach senden.

1. `| _ | L | M | A | 0 | 0 | *1 | *2 |` Taste "enter" — *1 das erste Byte, *2 das zweite Byte
   Auf “OK” warten.
2. `| _ | L | M | A | 1 | 0 | *3 | *4 |` Taste "enter" — *3 das dritte Byte, *4 das vierte Byte
   Auf “OK” warten.
3. `| _ | L | M | A | 2 | 0 | *5 | *6 |` Taste "enter" — *5 das fünfte Byte, *6 das sechste Byte
   Auf “OK” warten.
4. `| _ | L | M | A | 3 | 0 | *7 | *8 |` Taste "enter" — *7 das siebte Byte, *8 das achte Byte
   Auf “OK” warten.
5. `| _ | L | M | A | 4 | 0 | *9 | *10 |` Taste "enter" — *9 das neunte Byte, *10 das 10. Byte
   Auf “OK” warten.
6. `| _ | L | M | A | 5 | 0 | *11 | *12 |` Taste "enter" — *11 das 11. Byte, *12 das 12. Byte

(Lesen)

Die folgenden 232C-Befehle senden.

`| _ | L | M | A |   |   |   | 1 |` Taste "enter"
Die MAC-Adresse erscheint auf dem Bildschirm.

**Schreiben der Seriennummer** (Schreiben)

Die folgenden 232C-Befehle der Reihe nach senden.

1. `| S | N | _ | 1 | 1 | 2 | 3 | 4 |` Taste "enter"
   Auf “OK” warten.
2. `| S | N | _ | 2 | 5 | 6 | 7 | 8 |` Taste "enter"
   Auf “OK” warten.
3. `| *1 | *2 | *3 | *4 | *5 | *6 | *7 | *8 | *9 | *10 | *11 | *12 |` Taste "enter" — *1-*12/Seriennummer
4. `| *1 | *2 | *3 | *4 | *5 | *6 | *7 | *8 | *9 | *10 | *11 | *12 |` Taste "enter" — Die gleichen Daten wie bei Schritt 3
   Auf “OK” warten.

Hinweis:
Ist die Stellenzahl der Seriennummer kürzer als zwölf Stellen, dann das Leerzeichen “ “ benutzen.
Zum Beispiel
Die Seriennummer ist "1311163".
`|   |   |   |   |   | 1 | 3 | 1 | 1 | 1 | 6 | 3 |` Taste "enter"

Die Seriennummer ist "412311112"
`|   |   |   | 4 | 1 | 2 | 3 | 1 | 1 | 1 | 1 | 2 |` Taste "enter"

(Lesen)

Die folgenden 232C-Befehle senden.

`| S | N | R | D |   |   |   | 1 |` Taste "enter"
Die Seriennummer erscheint auf dem Bildschirm.

**Überprüfen des Projektorstatus** (Lesen)

Die folgenden 232C-Befehle senden.

`| T | F | C | K |   |   |   | 1 |` + "enter" key
Die Seriennummer erscheint auf dem Bildschirm.

### Überprüfen des Projektorstatus

Im Benutzermenü die Gruppe "Option2" und anschließend den “Service-Modus” wählen.
Das Kennwort "9303" eingeben.

### Einstellen des Service-Modus

- Mit der Taste DOWN oder UP die einzustellende Gruppe auswählen, und per Druck auf die Taste ENTER auf der Fernbedienung oder Tastatur den Einstellgegenstand eingeben.
- Mit der Taste DOWN oder UP den Einstellgegenstand auswählen.
- Zur Einstellung die Taste LEFT oder RIGHT benutzen.
- Zum Zurückkehren vom Einstellgegenstand zur Einstellgruppe die Taste UNDO oder MENU benutzen.

### Hinweise

- Im Service-Modus wird der Benutzer-Einstellwert zum Standardwert gewechselt (Bild/CMS). Wenn Sie den Service-Modus beenden, wechselt der Einstellwert zum Benutzer-Einstellwert.
- Im Service-Modus werden die folgenden Funktionen annulliert. AV-Stummschaltung / Ton-Stummschaltung / Einfrieren / Vergrößerung / PinP
- Im Service-Modus ist die Taste “standby” auf der Fernbedienung oder auf dem Bedienfeld ungültig. Wenn Sie die Stromversorgung ausschalten möchten, den Service-Modus beenden.

Einstellung des Weißabgleichs
RGB-PC-Weißbalance-Einstellung

1. INPUT1 das RGB PC-Signal zuführen.
2. Die Gruppe "DLP" auswählen.
   PH50X wechselt automatisch zum INPUT1/RGB-Modus.

| Gruppe | Objekt | Anfangswert | Bereich | Einstellung | Quelle/Modus |
|---|---|---|---|---|---|
| DLP | R1-BLK | 0 | ±20 | Helligkeit des Rots | INPUT1 / RGB |
| | R1-GAIN | 0 | ±20 | Kontrast des Rots | INPUT1 / RGB |
| | G1-BLK | 0 | ±20 | Helligkeit des Grüns | INPUT1 / RGB |
| | G1-GAIN | 0 | ±20 | Kontrast des Grüns | INPUT1 / RGB |
| | B1-BLK | 0 | ±20 | Helligkeit des Blaus | INPUT1 / RGB |
| | B1-GAIN | 0 | ±20 | Kontrast des Blaus | INPUT1 / RGB |

Video-Weißbalance-Einstellung

1. Das Videosignal zuführen.
2. Die Gruppe "DLPV" auswählen.
   PH50X wechselt automatisch zum INPUT4-Modus.

| Gruppe | Objekt | Anfangswert | Bereich | Einstellung | Quelle/Modus |
|---|---|---|---|---|---|
| DLPV | V-R1-BLK | 0 | ±20 | Helligkeit des Rots | INPUT4 / video |
| | V-R1-GAIN | 0 | ±20 | Kontrast des Rots | INPUT4 / video |
| | V-G1-BLK | 0 | ±20 | Helligkeit des Grüns | INPUT4 / video |
| | V-G1-GAIN | 0 | ±20 | Kontrast des Grüns | INPUT4 / video |
| | V-B1-BLK | 0 | ±20 | Helligkeit des Blaus | INPUT4 / video |
| | V-B1-GAIN | 0 | ±20 | Kontrast des Blaus | INPUT4 / video |

DTV-Weißbalance-Einstellung

1. INPUT1 das Komponentensignal zuführen.
2. Die Gruppe "DLPV" auswählen.
   PH50X wechselt automatisch zum INPUT1/Komponenten-Modus.

| Gruppe | Objekt | Anfangswert | Bereich | Einstellung | Quelle/Modus |
|---|---|---|---|---|---|
| DLPV | C-R1-GAIN | 0 | ±20 | Kontrast des Rots | INPUT1 / component |
| | C-G1-GAIN | 0 | ±20 | Kontrast des Grüns | INPUT1 / component |
| | C-B1-GAIN | 0 | ±20 | Kontrast des Blaus | INPUT1 / component |

Memo: Der Einstellwert der Helligkeit ist gleich wie beim Video.

Einstellung des Videos

1. Das Videosignal zuführen.
2. Die Gruppe "VIDEO" auswählen.
   PH50X wechselt automatisch zum INPUT4-Modus.

| | Gruppe | Objekt | Anfangswert | Bereich | Einstellung | Quelle/Modus |
|---|---|---|---|---|---|---|
| Einstellung des VIDEO-Bildes | VIDEO | PICTURE | 0 | ±60 | Kontrast | INPUT4 / video |
| | | BRIGHT | 0 | ±60 | Helligkeit | INPUT4 / video |
| | | TINT | 0 | ±120 | Farbton (bewirkt in nur NTSC) | INPUT4 / video |
| Einstellung der VIDEO-Farbe | | N-COLOR | 0 | ±120 | Farbsättigung | INPUT4 / video |
| Einstellung der VIDEO-Verstärkungssteuerung | | AGC-CNT | 0 | 0-1 | Aut. Verstärkungssteuerung<br>0: AGC ein<br>1: AGC aus | INPUT4 / video |
| Einstellung der Verzögerung zwischen Chroma und Luminanz | | DLY | 0 | ±5 | | INPUT4 / video |
| Einstellung der VIDEO-Horizontalposition | | H-CENTER | 0 | ±10 | | INPUT4 / video |
| Einstellung des VIDEO-Tiefpassfilters | | FILTER | 0 | ±3 | Filterverstärkung | INPUT4 / video |

Andere

| | Gruppe | Objekt | Anfangswert | Bereich | Einstellung | Quelle/Modus |
|---|---|---|---|---|---|---|
| Umschaltung des Komponenten-Tiefpassfilters | VIDEO | COMP-FILTER | 0 | 0-1 | 0: Filter aus, 1: Filter ein | INPUT1 / component |
| Umschaltung des RGB-Tiefpassfilters | | RGB-FILTER | 0 | 0-1 | 0: Filter aus, 1: Filter ein | INPUT1 / RGB |
| Umschaltung der Tonverzögerung des eingebauten Lautsprechers | | A-DELAY | 0 | 0-1 | 0: Verzögerung ein, 1: Verzögerung aus | INPUT4 / video |

initialization of adjustment value

| RESET |
|---|

- Dieses Gegenstand auswählen und die Taste ENTER drücken.
Mit RESET kehrt der Wert in jedem Gegenstand von "DLP", "DLPV" und "VIDEO" zum Anfangswert zurück.

Internes Prüfmuster

| Gruppe | Objekt | Anfangswert | Bereich | Signal |
|---|---|---|---|---|
| PATTERN | RGB | 1 | 1-8 | Rastersignal |
| | RGB[50] | 1 | 1-8 | 50%-Rastersignal |
| | CROSS | 1 | 1-9 | Gekreuzte Schraffur |
| | FOCUS | 1 | 1-2 | "Checkered"-Signal |
| | STEP | 1 | 1-2 | 8-Schritt/16-Schritt |
| | COLOR | | | Farbbalken |
| | CHR | 1 | 1-4 | Quer- und Vertikallinie |

Firmwareversion

| Gruppe | Objekt | Version |
|---|---|---|
| FIRMWARE | SUB | *.** |
| | MAIN-LOADER | *.** |
| | MAIN-ZIMAGE | *.** |
| | MAIN-MTD | *.** |
| | MAIN-JFFS | *.** |

Netzwerk-Einstellung

| Gruppe | Objekt | Adresse |
|---|---|---|
| NETWORK | IP ADDRESS | 192.168.150.002 |
| | MAC ADDRESS | **:**:**:**:**:** |

Beenden des Service-Modus

| Gruppe |
|---|
| EXIT |

- Dieses Gegenstand auswählen und die Taste ENTER drücken.

## Fehlermöglichkeit, wenn die Lampe auch beim Anschalten nicht aufleuchtet

1. Status der LED

- POWER leuchtet nicht auf.
  Die Sub-CPU (IC3603) startet nicht. Die peripheren Schaltungen überprüfen.

- POWER blinkt rot.
  Abstand von 0,5 Sekunden: Ventilatorfehlererkennung.
  (Dieses Gerät erkennt die Ventilatordrehzahl. Läuft der Ventilator langsamer als die voreingestellte untere Geschwindigkeitsgrenze, dann wird die Stromversorgung von der Schutzfunktion abgeschaltet, selbst wenn der Ventilator nicht vollständig stoppt.)
  Abstand von 1 Sekunde: Erkennung der untere Luftfilterabdeckung (RCS).
  Abstand von 2 Sekunden: Kommunikationsfehler zwischen Sub-CPU (IC3603) und Haupt-CPU (IC8003).

- LAMP LED blinkt rot.
  Abstand von 1 Sekunde: Lampenblattschalter-Erkennung.
  (Die Stromversorgung schaltet sich nicht ein, wenn die Lampenkassette vom Gerät entfernt wird.)

2. Statusprüfung über serielle RS232C-Kommunikation

Über die 232C-Kommunikation "TFCK△△△1"+ENTER,"TABN△△△1" senden, um den Projektorstatus zu überprüfen.

Beispiel für Rückgabewerte des normalen Geräts

```
TFCK   1
[ RCS ] Close
[ Lamp1 Leaf ] Close
[ Lamp2 Leaf ] Close
[ Main-Sub ] Communication OK.
[ Fan ] Normal
    [ pwm Fan1] No error
    [ pwm Fan2] No error
    [ pwm Fan3] No error
    [ pwm Fan4] No error
    [ pwm Fan5] No error
    [ pwm Fan6] No error
    [ dac Fan0] No error
    [ dac Fan1] No error
[ Temperature ] Normal
[ Lamp1 Non Light ] Normal
[ Lamp2 Non Light ] Normal
[ Lamp Life1 ] Normal
[ Lamp Life2 ] Normal
OK
```

3. Andere

- Die Lampe leuchtet nicht auf, wenn der Farbradmotor nicht läuft.
- Die Lampe leuchtet nicht auf, wenn der Thermistorsensor nicht angeschlossen wird (z.B. Leitungsbruch).

- Bei einem Kommunikationsfehler zwischen IC8003 und IC8025 leuchtet die Lampe nicht auf.

4. Deaktivierung der Sensoren
   Vorsicht: Wenn das Gerät mit deaktivierten Sensoren dem Benutzer zurückgegeben wird, kann das Gehäuse durch die Hitze deformiert werden, da die Schutzfunktion nicht arbeitet. Nach Beendigung der Prüfung müssen die Sensoren in den ursprünglichen Zustand wiederhergestellt werden.

- Temperatursensor
  Einen Widerstand von 10 kΩ zwischen den Stiften 1 und 2 von CN7205 und 12 k_ zwischen den Stiften 1 und 2 von CN7005 montieren, um mit demontiertem Sensor die Stromversorgung einzuschalten. Da das Gerät auf dem Sensortemperatur-Fixed-Mode eingestellt wird, wird die Ventilatordrehzahl auf die niedrige Geschwindigkeit fixiert. Nach Beendigung der Prüfung müssen die Widerstände entfernt werden.

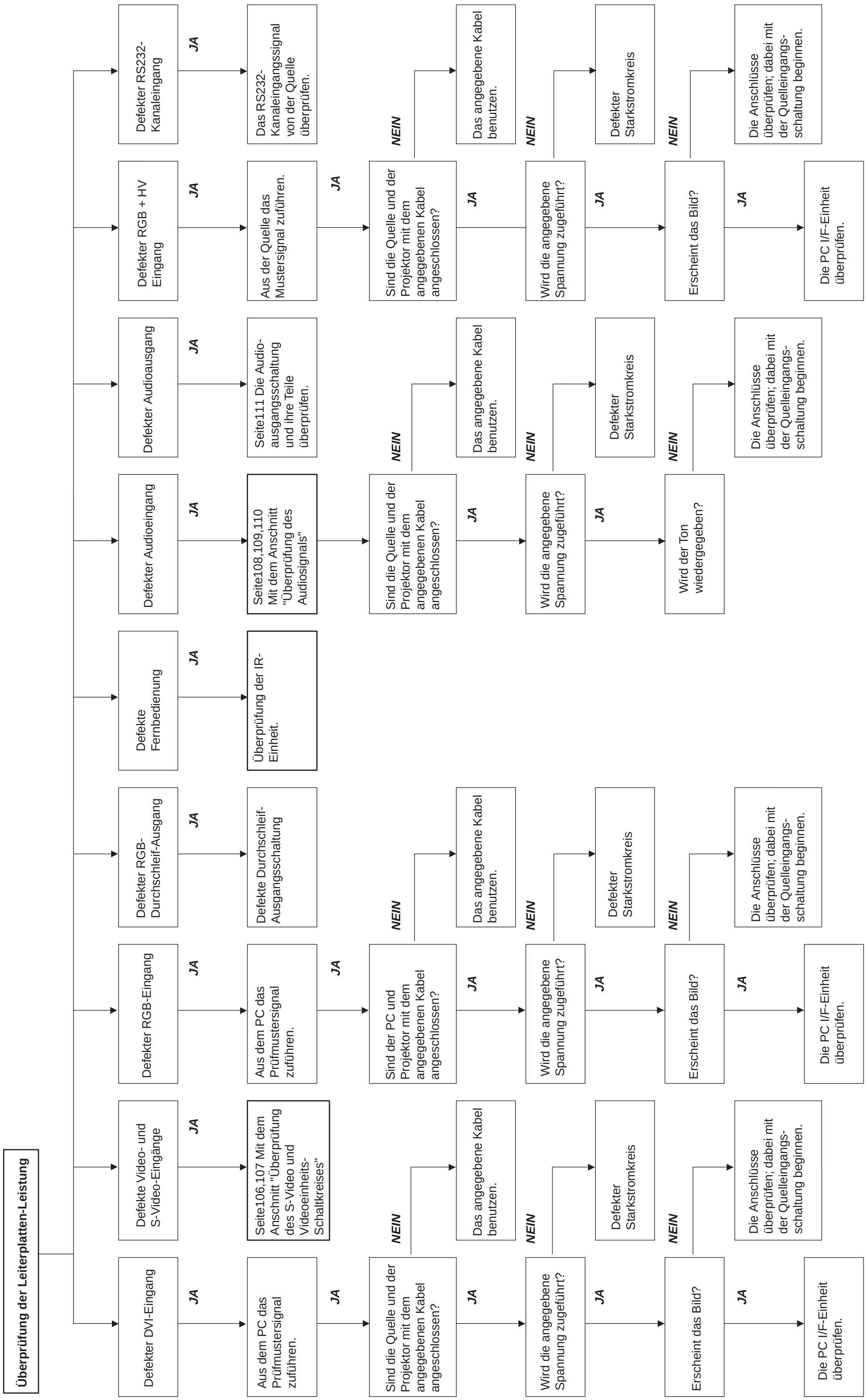
- Erkennung der Ventilatorverriegelung
  Dieses Gerät erkennt den Impuls des Ventilators. Beim Überprüfen des Leiterplattenbetriebs ohne Ventilatorlauf ist der Stift C8 von IC3603 (an der Stift-C8-Seite von R3727) mit einem Überbrückungsdraht an GND anzuschließen. Selbst wenn der Ventilator nicht läuft, führt das Gerät den Betrieb fort; dies beeinträchtigt die Zuverlässigkeit von Teilen. Nach Beendigung der Prüfung muss der Überbrückungsdraht entfernt werden.

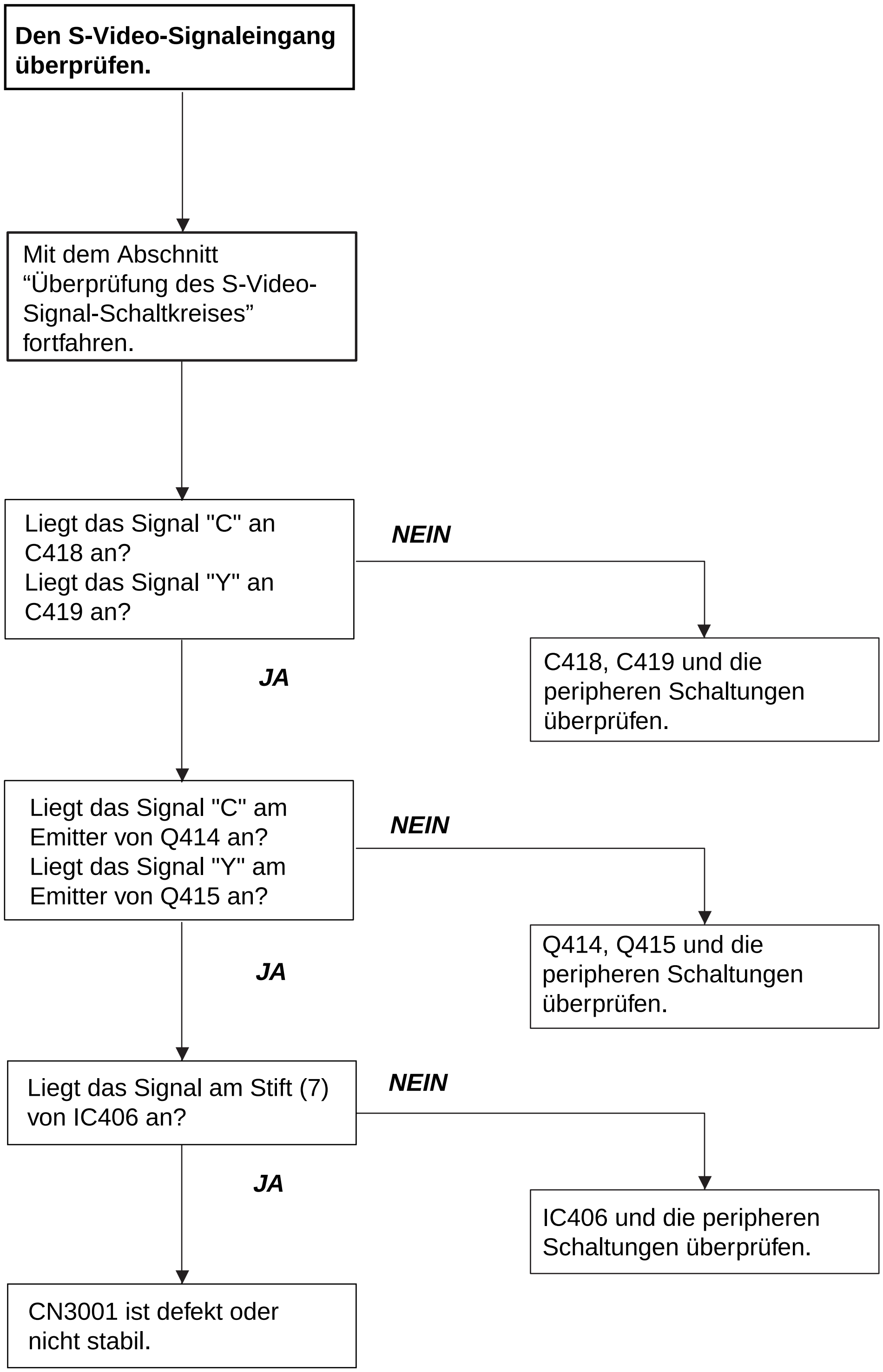
- Erkennung der Luftfilterabdeckung
  Zwischen den Stiften 1 und 2 von CN7001 kurzschließen.
  Da sich die Stromversorgung auch bei entfernter Filterabdeckung einschaltet, kann sich der Benutzer mit dem Ventilator verletzen. Nach Beendigung der Prüfung muss dies in den ursprünglichen Zustand wiederhergestellt werden.

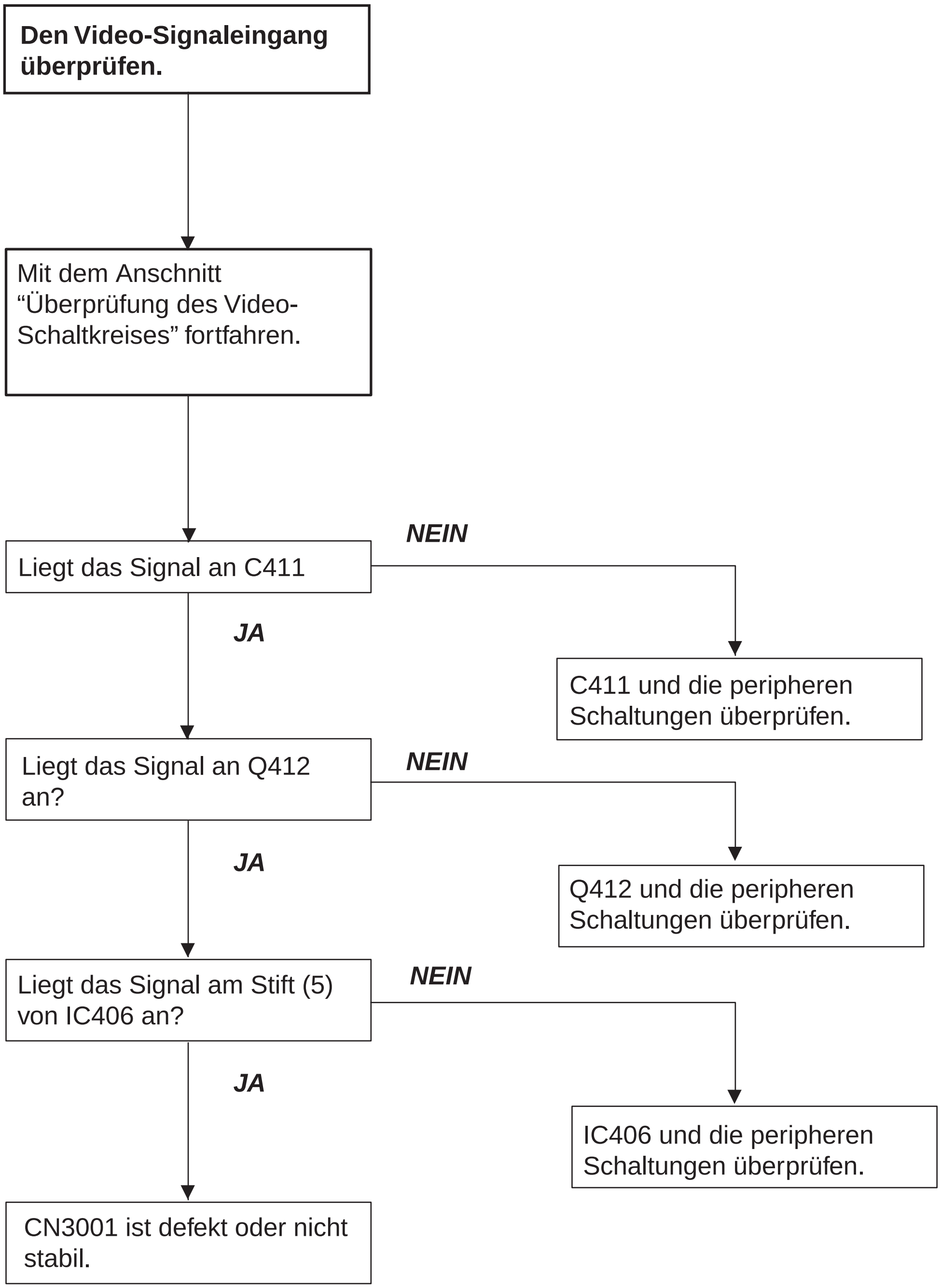
- Erkennung der Lampenkassette
  Dieses Gerät weist zwei Lampen auf. Wenn die Lampe nach dem Entfernen einer Lampenkassette eingeschaltet wird, kann das Gehäuse durch die Hitze deformiert werden. Nach Beendigung der Prüfung muss die Lampenkassette in den ursprünglichen Zustand wiederhergestellt werden.
  Zwischen den Stiften 1 und 2 von CN2801/CN2802 kurzschließen.

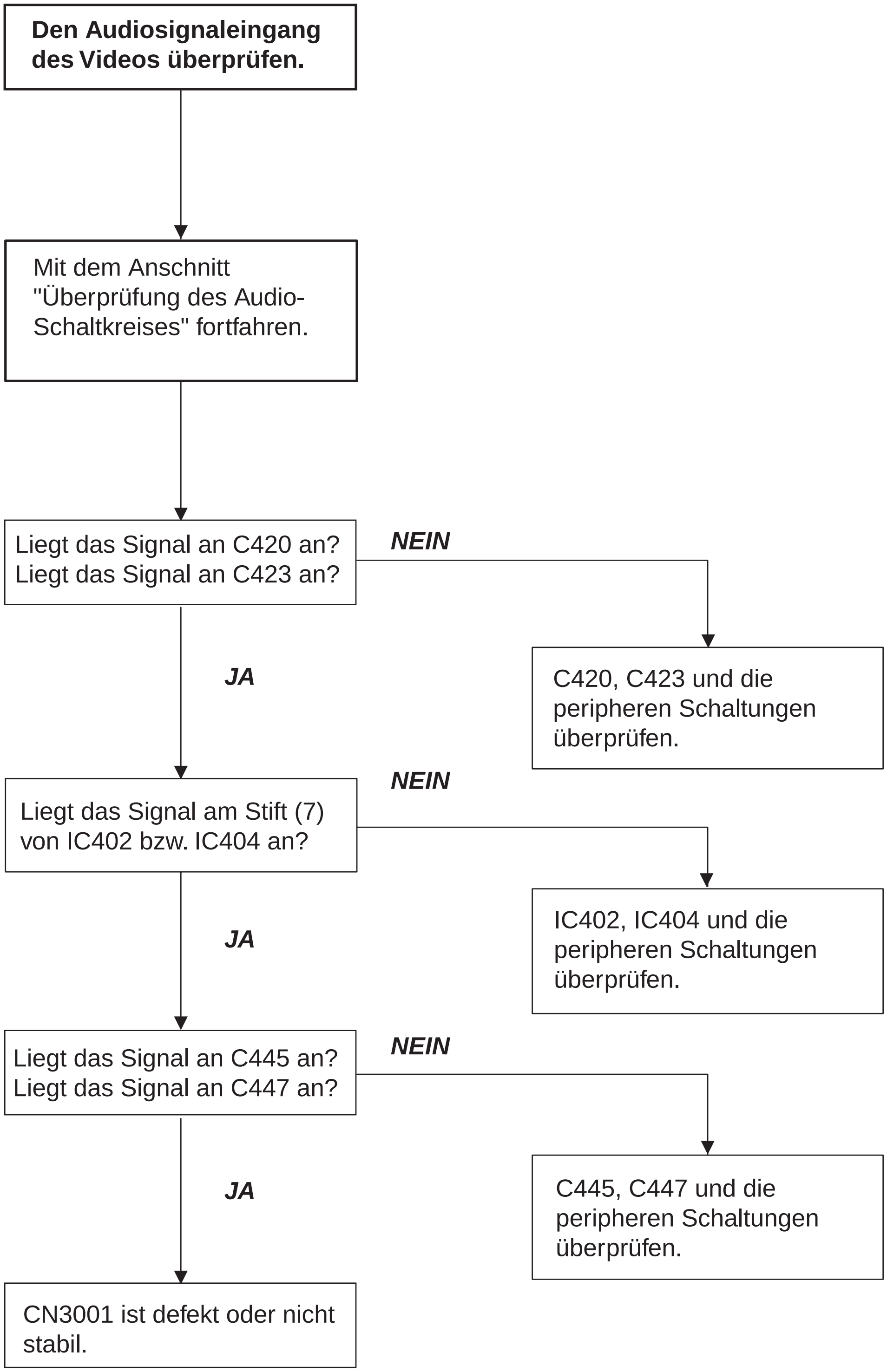
- Farbradmotor/Lichtsensor
  Kann nicht deaktiviert werden. Ein Verlängerungsstück anschließen.

# FEHLERSUCHTABELLE


Überprüfung der Leiterplatten-Leistung
Defekter RS232-Kanaleingang
JA
Das RS232-Kanaleingangssignal von der Quelle überprüfen.
Defekter RGB + HV Eingang
JA
Aus der Quelle das Mustersignal zuführen.
JA
Sind die Quelle und der Projektor mit dem angegebenen Kabel angeschlossen?
NEIN
Das angegebene Kabel benutzen.
JA
Wird die angegebene Spannung zugeführt?
NEIN
Defekter Starkstromkreis
JA
Erscheint das Bild?
NEIN
Die Anschlüsse überprüfen; dabei mit der Quelleingangs-schaltung beginnen.
JA
Die PC I/F-Einheit überprüfen.
Defekter Audioausgang
JA
Seite111 Die Audio-ausgangsschaltung und ihre Teile überprüfen.
Defekter Audioeingang
JA
Seite108,109,110 Mit dem Anschnitt "Überprüfung des Audiosignals"
Sind die Quelle und der Projektor mit dem angegebenen Kabel angeschlossen?
NEIN
Das angegebene Kabel benutzen.
JA
Wird die angegebene Spannung zugeführt?
NEIN
Defekter Starkstromkreis
JA
Wird der Ton wiedergegeben?
NEIN
Die Anschlüsse überprüfen; dabei mit der Quelleingangs-schaltung beginnen.
Defekte Fernbedienung
JA
Überprüfung der IR-Einheit.
Defekter RGB-Durchschleif-Ausgang
JA
Defekte Durchschleif-Ausgangsschaltung
Defekter RGB-Eingang
JA
Aus dem PC das Prüfmustersignal zuführen.
JA
Sind der PC und Projektor mit dem angegebenen Kabel angeschlossen?
NEIN
Das angegebene Kabel benutzen.
JA
Wird die angegebene Spannung zugeführt?
NEIN
Defekter Starkstromkreis
JA
Erscheint das Bild?
NEIN
Die Anschlüsse überprüfen; dabei mit der Quelleingangs-schaltung beginnen.
JA
Die PC I/F-Einheit überprüfen.
Defekte Video- und S-Video-Eingänge
JA
Seite106,107 Mit dem Anschnitt "Überprüfung des S-Video und Videoeinheits-Schaltkreises"
Defekter DVI-Eingang
JA
Aus dem PC das Prüfmustersignal zuführen.
JA
Sind die Quelle und der Projektor mit dem angegebenen Kabel angeschlossen?
NEIN
Das angegebene Kabel benutzen.
JA
Wird die angegebene Spannung zugeführt?
NEIN
Defekter Starkstromkreis
JA
Erscheint das Bild?
NEIN
Die Anschlüsse überprüfen; dabei mit der Quelleingangs-schaltung beginnen.
JA
Die PC I/F-Einheit überprüfen.


Den S-Video-Signaleingang überprüfen.
Mit dem Abschnitt “Überprüfung des S-Video-Signal-Schaltkreises” fortfahren.
Liegt das Signal "C" an C418 an? Liegt das Signal "Y" an C419 an?
NEIN
C418, C419 und die peripheren Schaltungen überprüfen.
JA
Liegt das Signal "C" am Emitter von Q414 an? Liegt das Signal "Y" am Emitter von Q415 an?
NEIN
Q414, Q415 und die peripheren Schaltungen überprüfen.
JA
Liegt das Signal am Stift (7) von IC406 an?
NEIN
IC406 und die peripheren Schaltungen überprüfen.
JA
CN3001 ist defekt oder nicht stabil.


Den Video-Signaleingang überprüfen.
Mit dem Anschnitt “Überprüfung des Video-Schaltkreises” fortfahren.
Liegt das Signal an C411
NEIN
JA
C411 und die peripheren Schaltungen überprüfen.
Liegt das Signal an Q412 an?
NEIN
JA
Q412 und die peripheren Schaltungen überprüfen.
Liegt das Signal am Stift (5) von IC406 an?
NEIN
JA
IC406 und die peripheren Schaltungen überprüfen.
CN3001 ist defekt oder nicht stabil.



**Den Audiosignaleingang des Videos überprüfen.**

Mit dem Anschnitt "Überprüfung des Audio-Schaltkreises" fortfahren.

Liegt das Signal an C420 an?
Liegt das Signal an C423 an?

C420, C423 und die peripheren Schaltungen überprüfen.

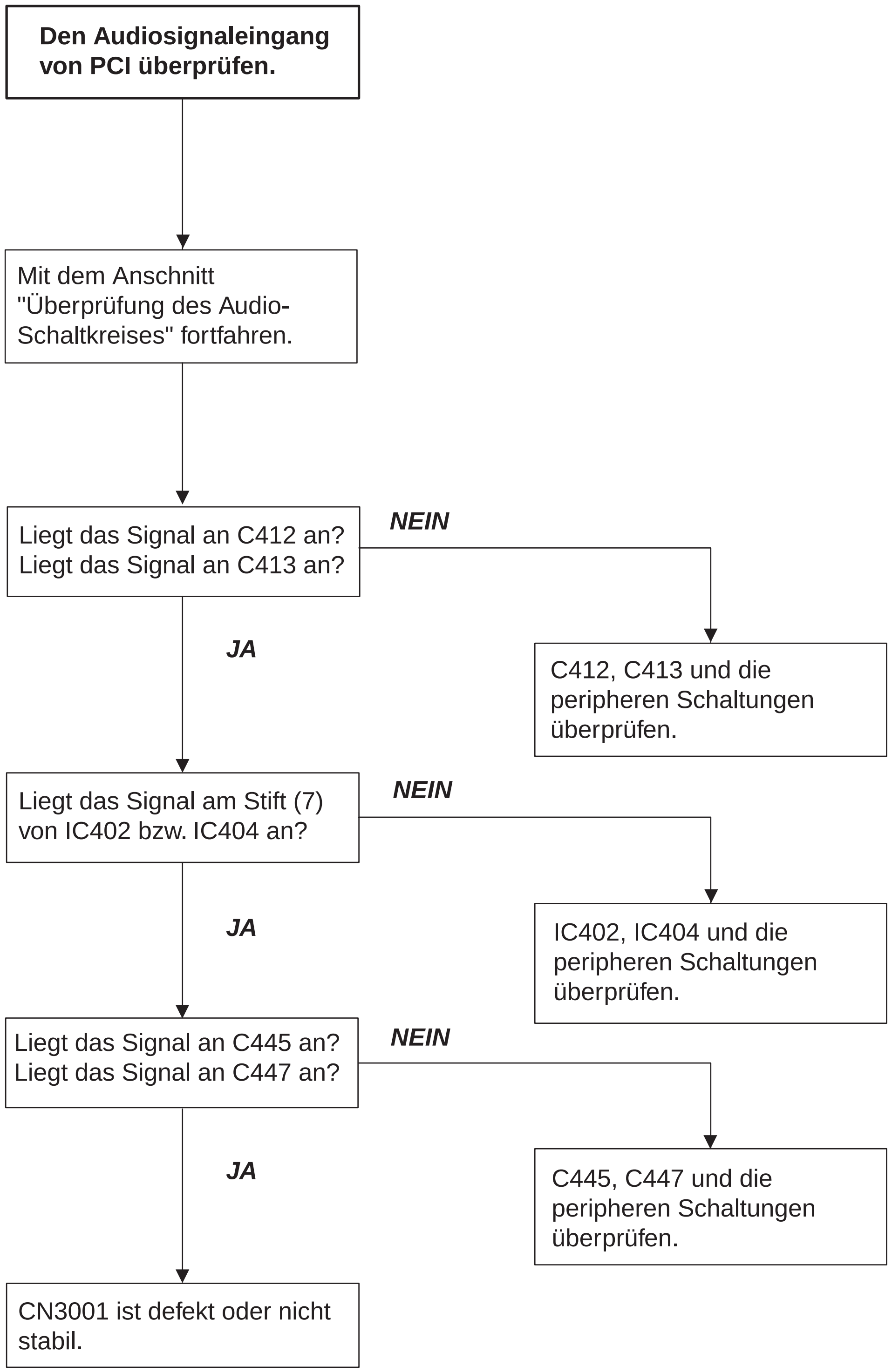
Liegt das Signal am Stift (7) von IC402 bzw. IC404 an?

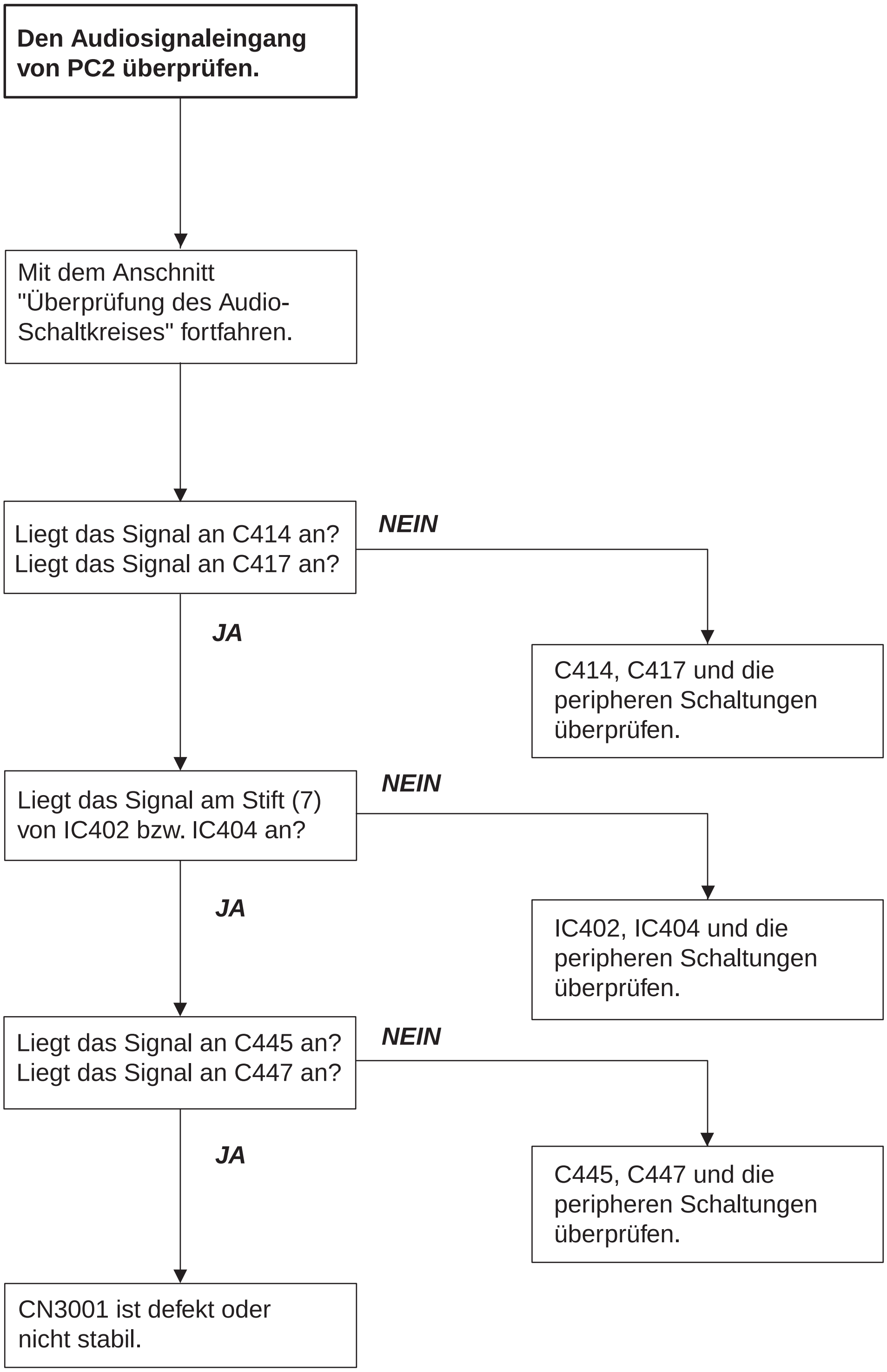
IC402, IC404 und die peripheren Schaltungen überprüfen.

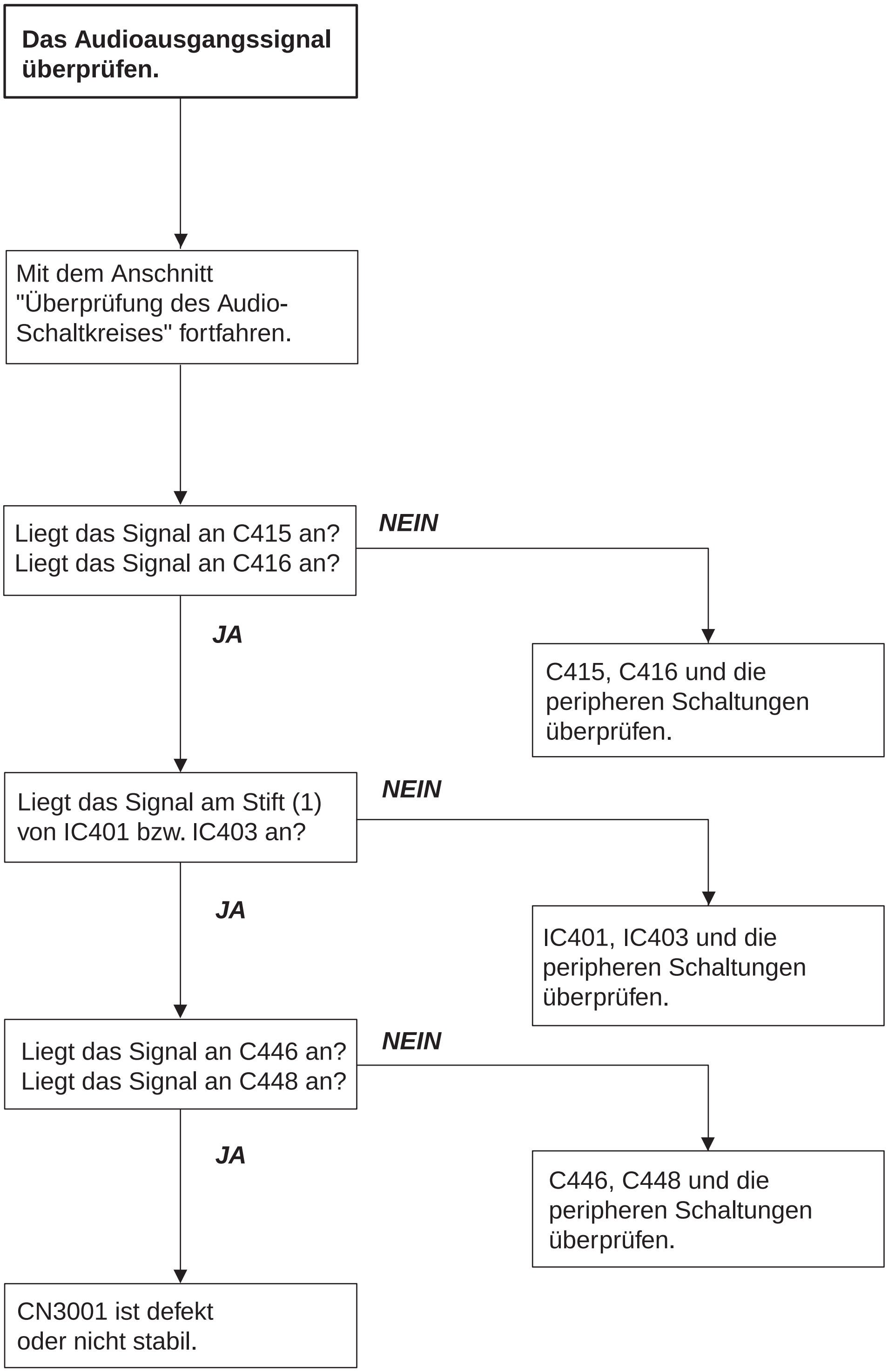
Liegt das Signal an C445 an?
Liegt das Signal an C447 an?

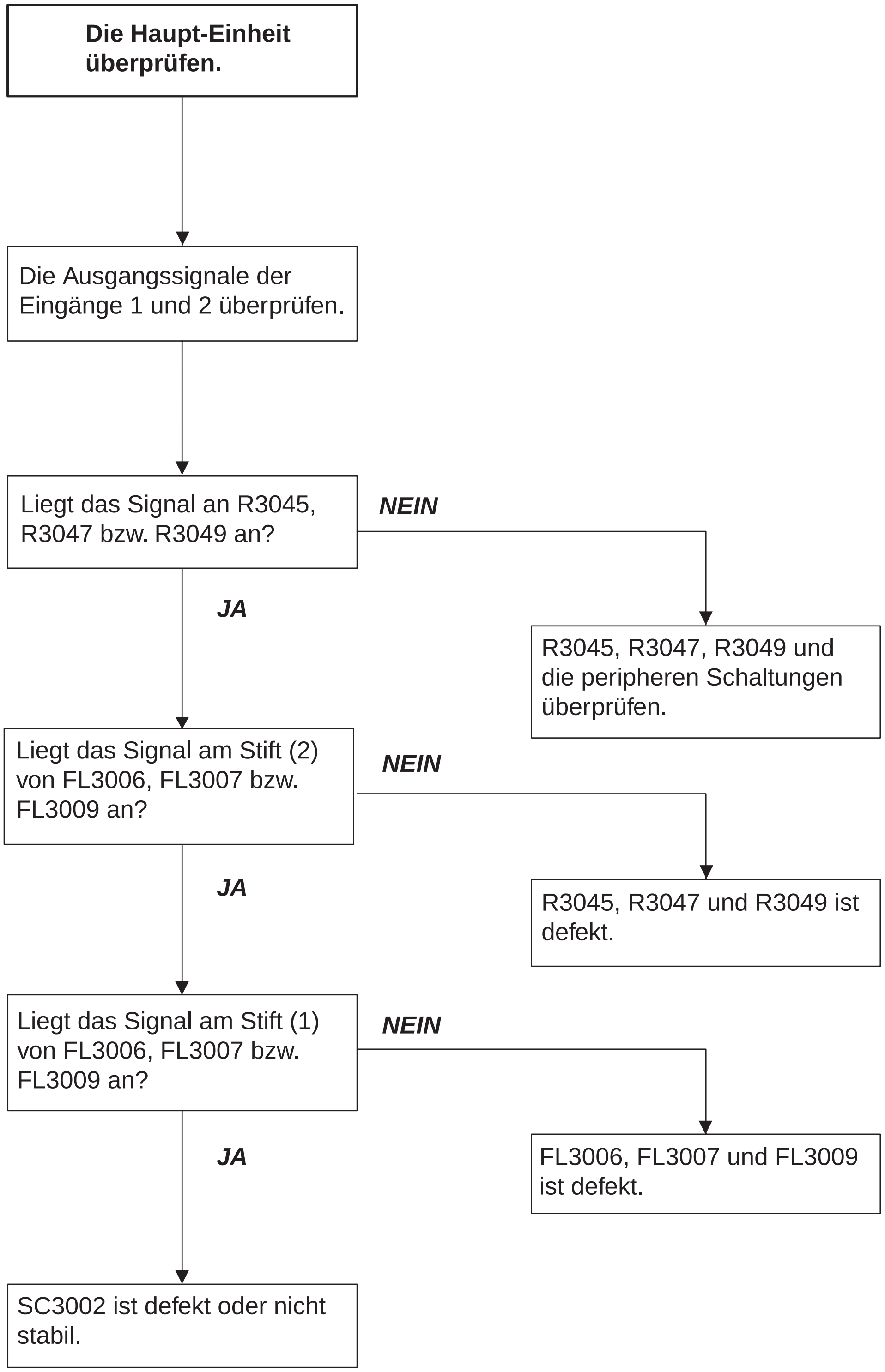
C445, C447 und die peripheren Schaltungen überprüfen.

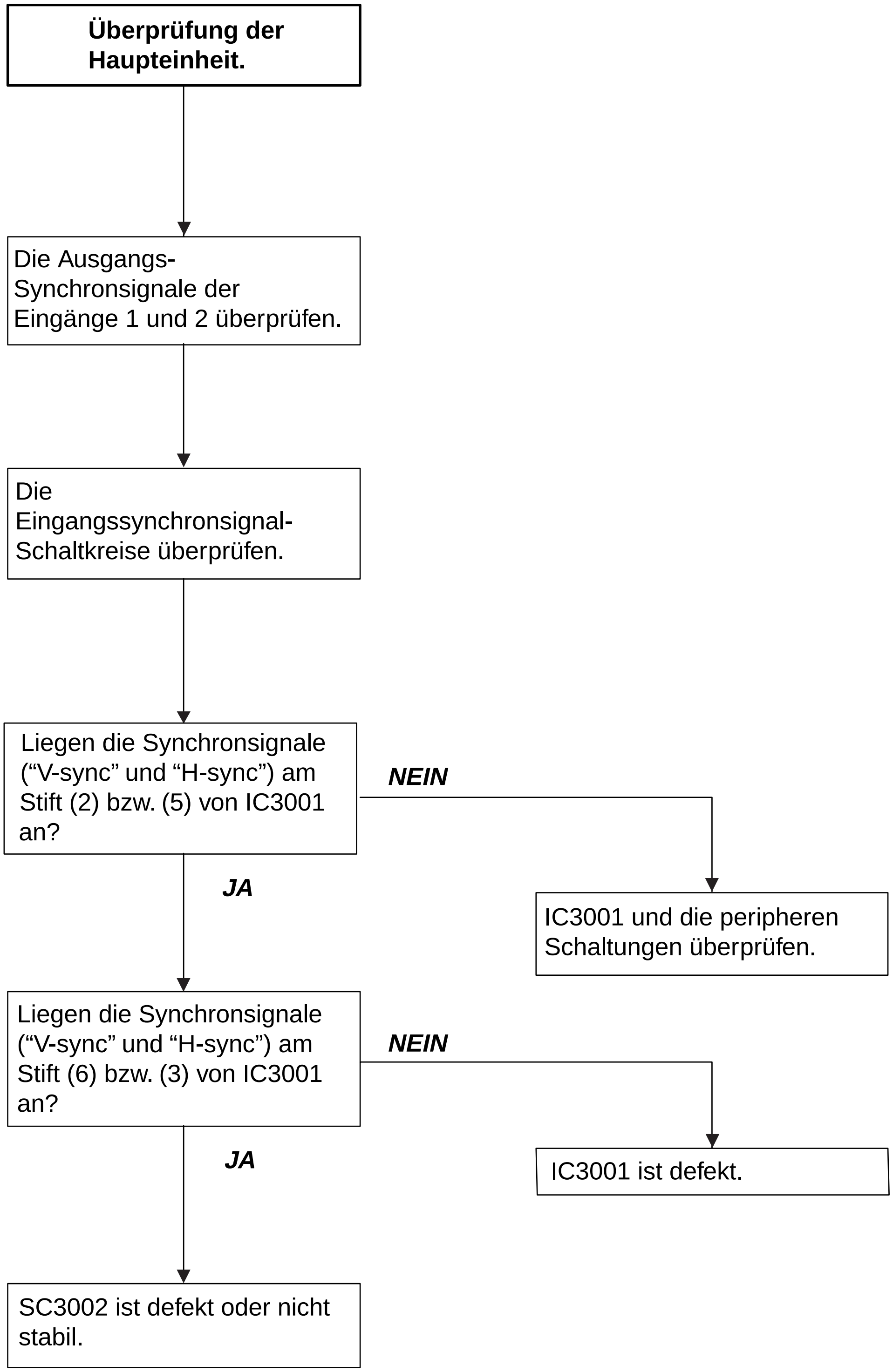
CN3001 ist defekt oder nicht stabil.

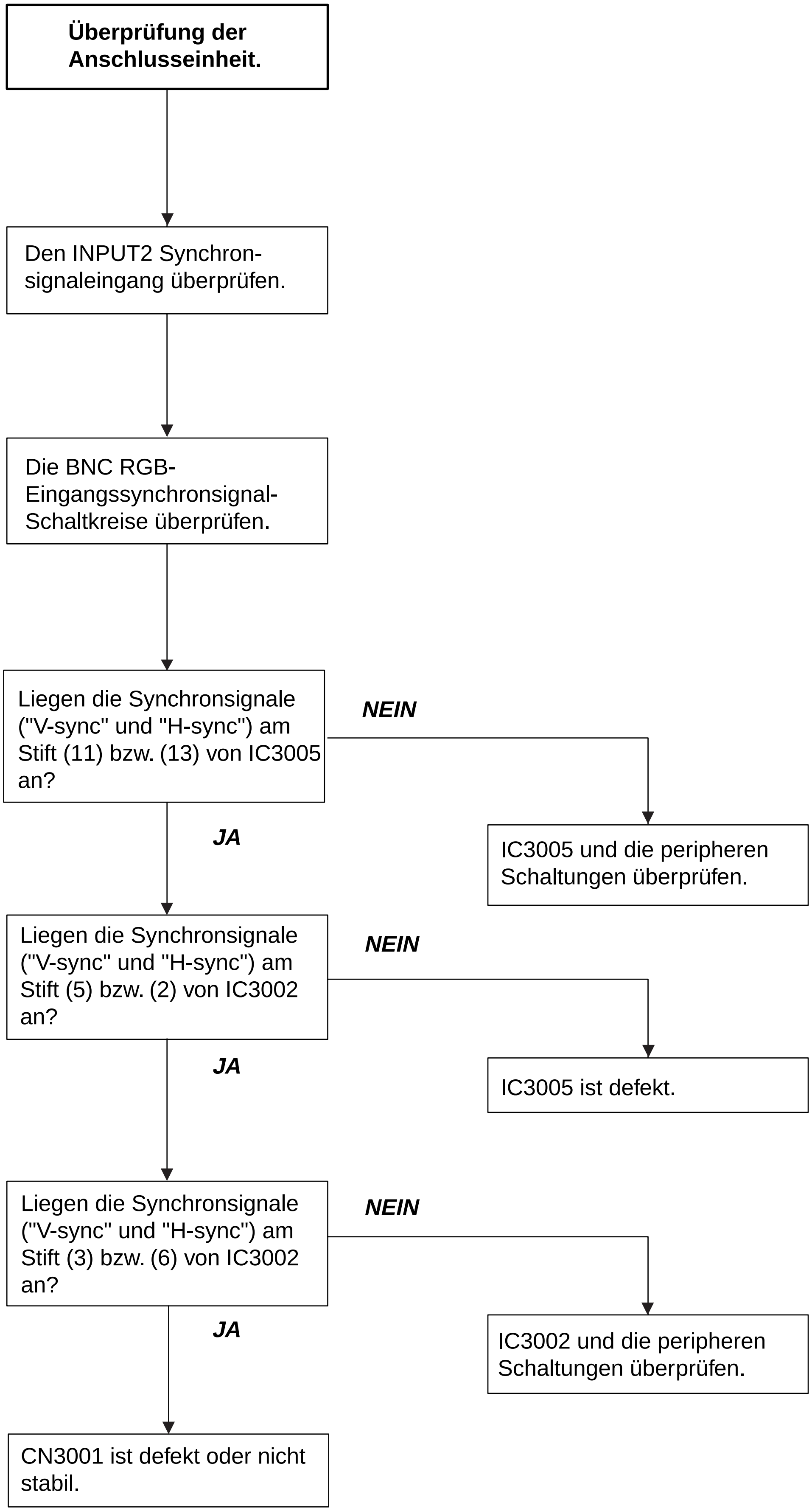

Den Audiosignaleingang von PCI überprüfen.
Mit dem Anschnitt "Überprüfung des Audio-Schaltkreises" fortfahren.
Liegt das Signal an C412 an? Liegt das Signal an C413 an?
NEIN
C412, C413 und die peripheren Schaltungen überprüfen.
JA
Liegt das Signal am Stift (7) von IC402 bzw. IC404 an?
NEIN
IC402, IC404 und die peripheren Schaltungen überprüfen.
JA
Liegt das Signal an C445 an? Liegt das Signal an C447 an?
NEIN
C445, C447 und die peripheren Schaltungen überprüfen.
JA
CN3001 ist defekt oder nicht stabil.

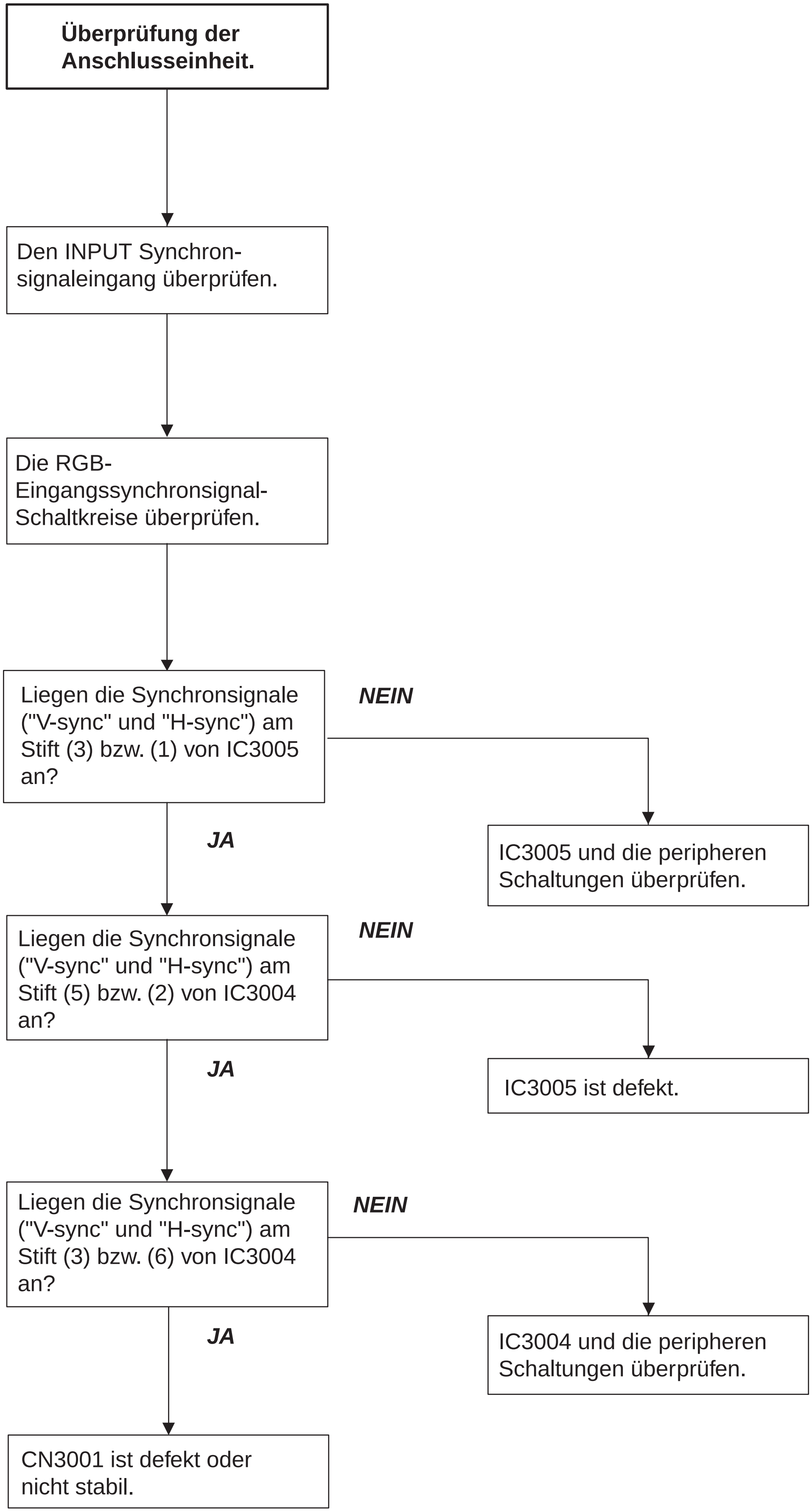

Den Audiosignaleingang von PC2 überprüfen.
Mit dem Anschnitt "Überprüfung des Audio-Schaltkreises" fortfahren.
Liegt das Signal an C414 an? Liegt das Signal an C417 an?
NEIN
C414, C417 und die peripheren Schaltungen überprüfen.
JA
Liegt das Signal am Stift (7) von IC402 bzw. IC404 an?
NEIN
IC402, IC404 und die peripheren Schaltungen überprüfen.
JA
Liegt das Signal an C445 an? Liegt das Signal an C447 an?
NEIN
C445, C447 und die peripheren Schaltungen überprüfen.
JA
CN3001 ist defekt oder nicht stabil.


Das Audioausgangssignal überprüfen.
Mit dem Anschnitt "Überprüfung des Audio-Schaltkreises" fortfahren.
Liegt das Signal an C415 an? Liegt das Signal an C416 an?
NEIN
C415, C416 und die peripheren Schaltungen überprüfen.
JA
Liegt das Signal am Stift (1) von IC401 bzw. IC403 an?
NEIN
IC401, IC403 und die peripheren Schaltungen überprüfen.
JA
Liegt das Signal an C446 an? Liegt das Signal an C448 an?
NEIN
C446, C448 und die peripheren Schaltungen überprüfen.
JA
CN3001 ist defekt oder nicht stabil.


Die Haupt-Einheit überprüfen.
Die Ausgangssignale der Eingänge 1 und 2 überprüfen.
Liegt das Signal an R3045, R3047 bzw. R3049 an?
NEIN
R3045, R3047, R3049 und die peripheren Schaltungen überprüfen.
JA
Liegt das Signal am Stift (2) von FL3006, FL3007 bzw. FL3009 an?
NEIN
R3045, R3047 und R3049 ist defekt.
JA
Liegt das Signal am Stift (1) von FL3006, FL3007 bzw. FL3009 an?
NEIN
FL3006, FL3007 und FL3009 ist defekt.
JA
SC3002 ist defekt oder nicht stabil.


Überprüfung der Haupteinheit.
Die Ausgangs-Synchronsignale der Eingänge 1 und 2 überprüfen.
Die Eingangssynchronsignal-Schaltkreise überprüfen.
Liegen die Synchronsignale (“V-sync” und “H-sync”) am Stift (2) bzw. (5) von IC3001 an?
NEIN
IC3001 und die peripheren Schaltungen überprüfen.
JA
Liegen die Synchronsignale (“V-sync” und “H-sync”) am Stift (6) bzw. (3) von IC3001 an?
NEIN
IC3001 ist defekt.
JA
SC3002 ist defekt oder nicht stabil.


Überprüfung der Anschlusseinheit.
Den INPUT2 Synchronsignaleingang überprüfen.
Die BNC RGB-Eingangssynchronsignal-Schaltkreise überprüfen.
Liegen die Synchronsignale ("V-sync" und "H-sync") am Stift (11) bzw. (13) von IC3005 an?
NEIN
IC3005 und die peripheren Schaltungen überprüfen.
JA
Liegen die Synchronsignale ("V-sync" und "H-sync") am Stift (5) bzw. (2) von IC3002 an?
NEIN
IC3005 ist defekt.
JA
Liegen die Synchronsignale ("V-sync" und "H-sync") am Stift (3) bzw. (6) von IC3002 an?
NEIN
IC3002 und die peripheren Schaltungen überprüfen.
JA
CN3001 ist defekt oder nicht stabil.



**Überprüfung der Anschlusseinheit.**

Den INPUT Synchronsignaleingang überprüfen.

Die RGB-Eingangssynchronsignal-Schaltkreise überprüfen.

Liegen die Synchronsignale ("V-sync" und "H-sync") am Stift (3) bzw. (1) von IC3005 an?

IC3005 und die peripheren Schaltungen überprüfen.

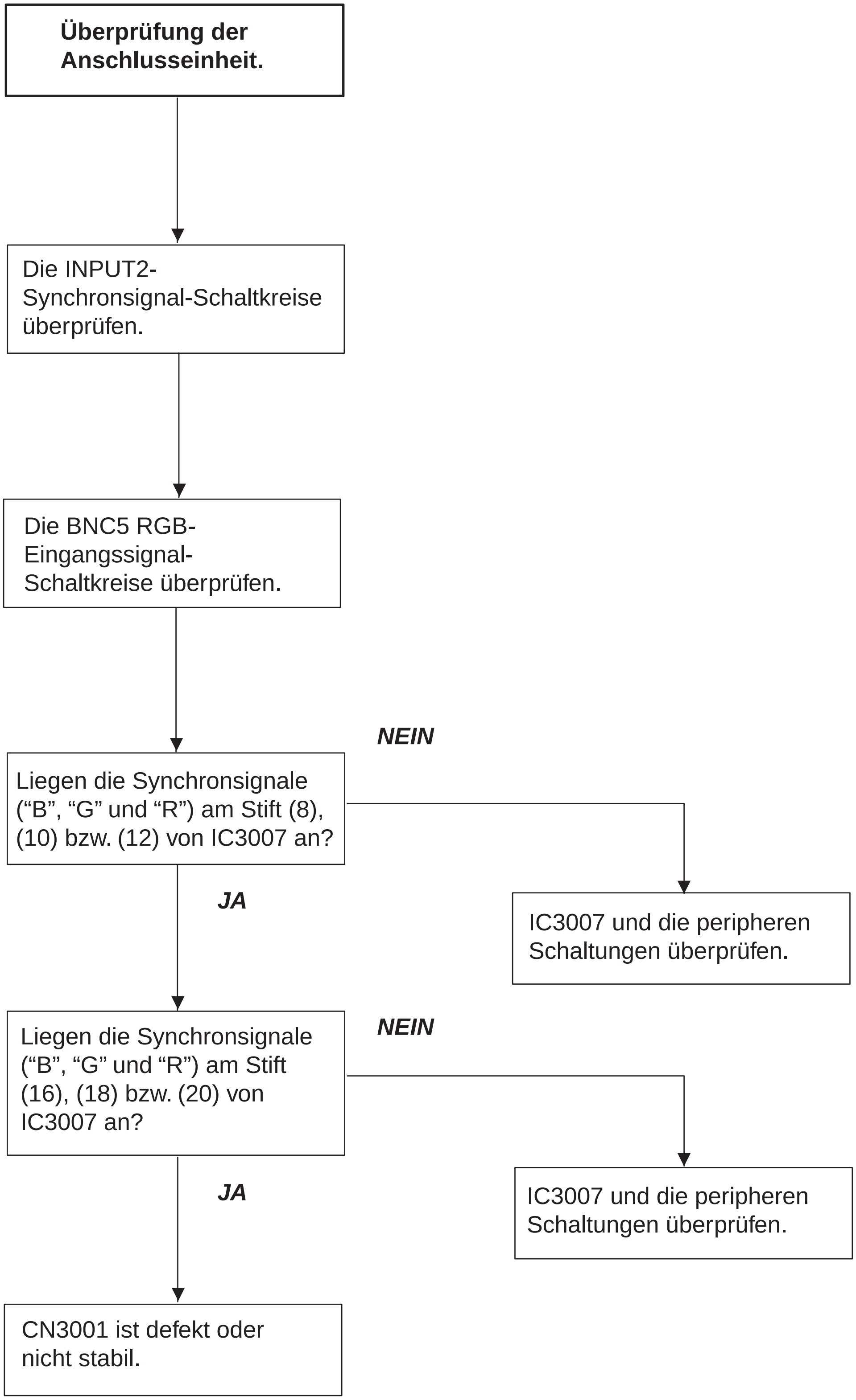
Liegen die Synchronsignale ("V-sync" und "H-sync") am Stift (5) bzw. (2) von IC3004 an?

IC3005 ist defekt.

Liegen die Synchronsignale ("V-sync" und "H-sync") am Stift (3) bzw. (6) von IC3004 an?

IC3004 und die peripheren Schaltungen überprüfen.

CN3001 ist defekt oder nicht stabil.



**Überprüfung der Anschlusseinheit.**

Die INPUT2-Synchronsignal-Schaltkreise überprüfen.

Die BNC5 RGB-Eingangssignal-Schaltkreise überprüfen.

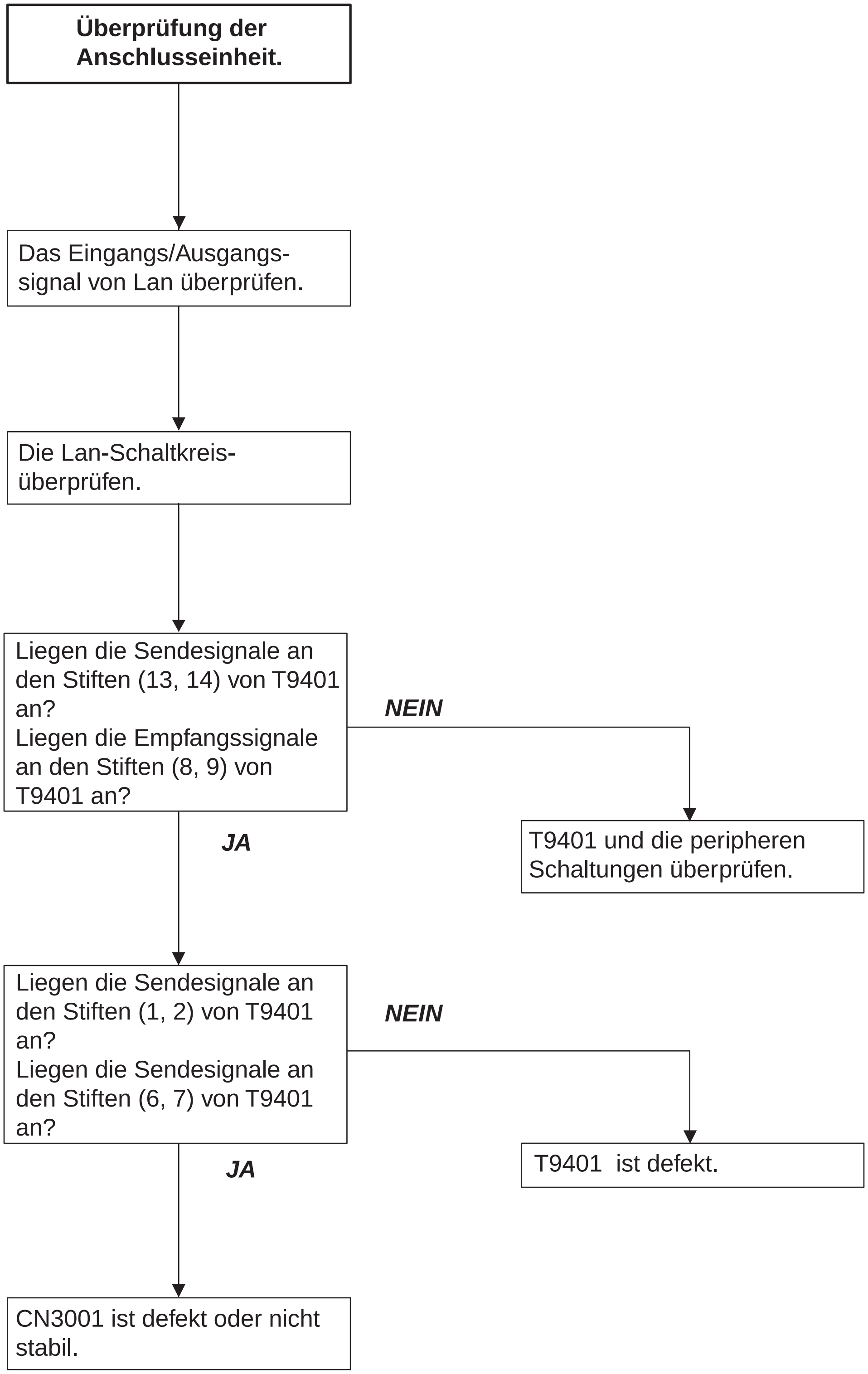
Liegen die Synchronsignale (“B”, “G” und “R”) am Stift (8), (10) bzw. (12) von IC3007 an?

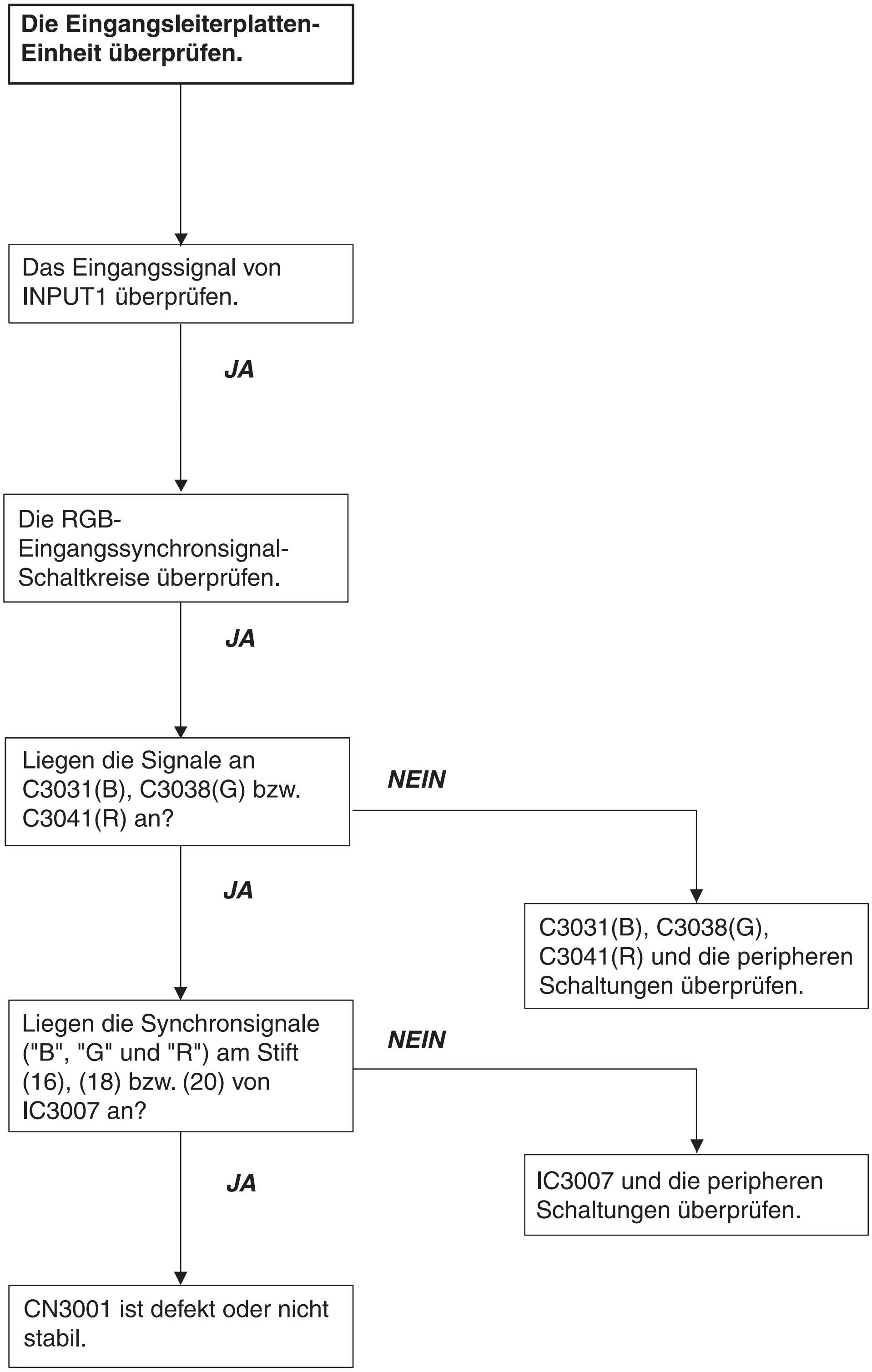
IC3007 und die peripheren Schaltungen überprüfen.

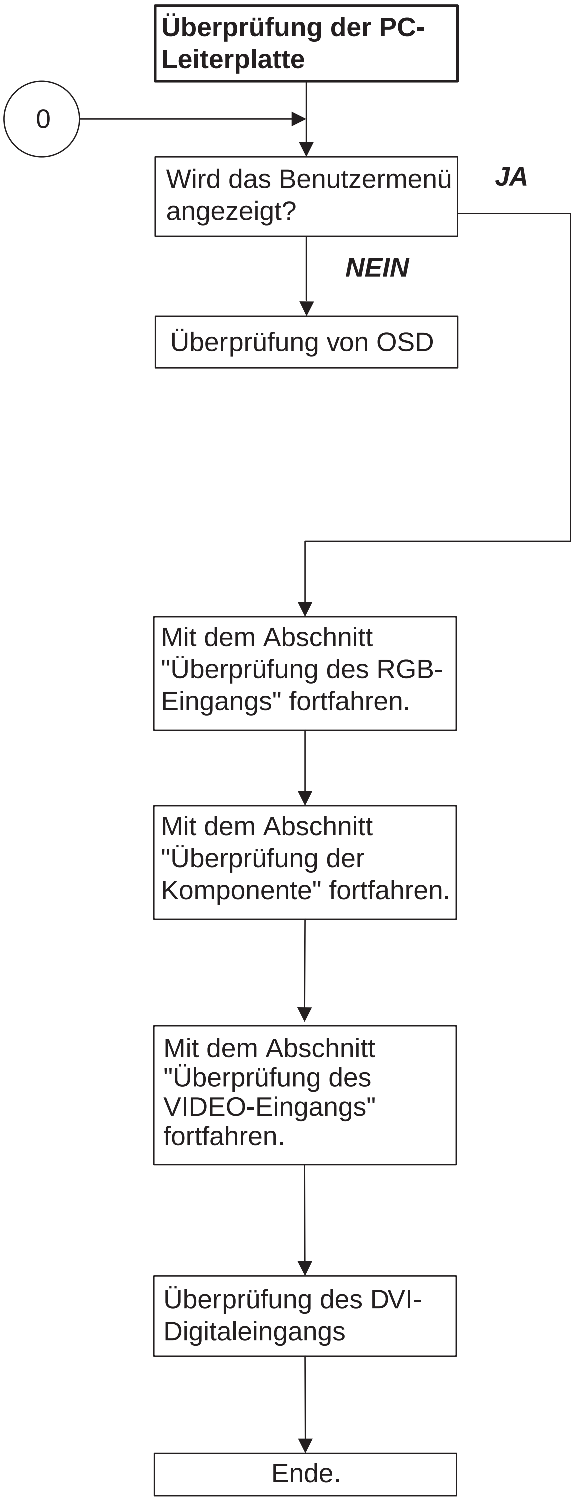
Liegen die Synchronsignale (“B”, “G” und “R”) am Stift (16), (18) bzw. (20) von IC3007 an?

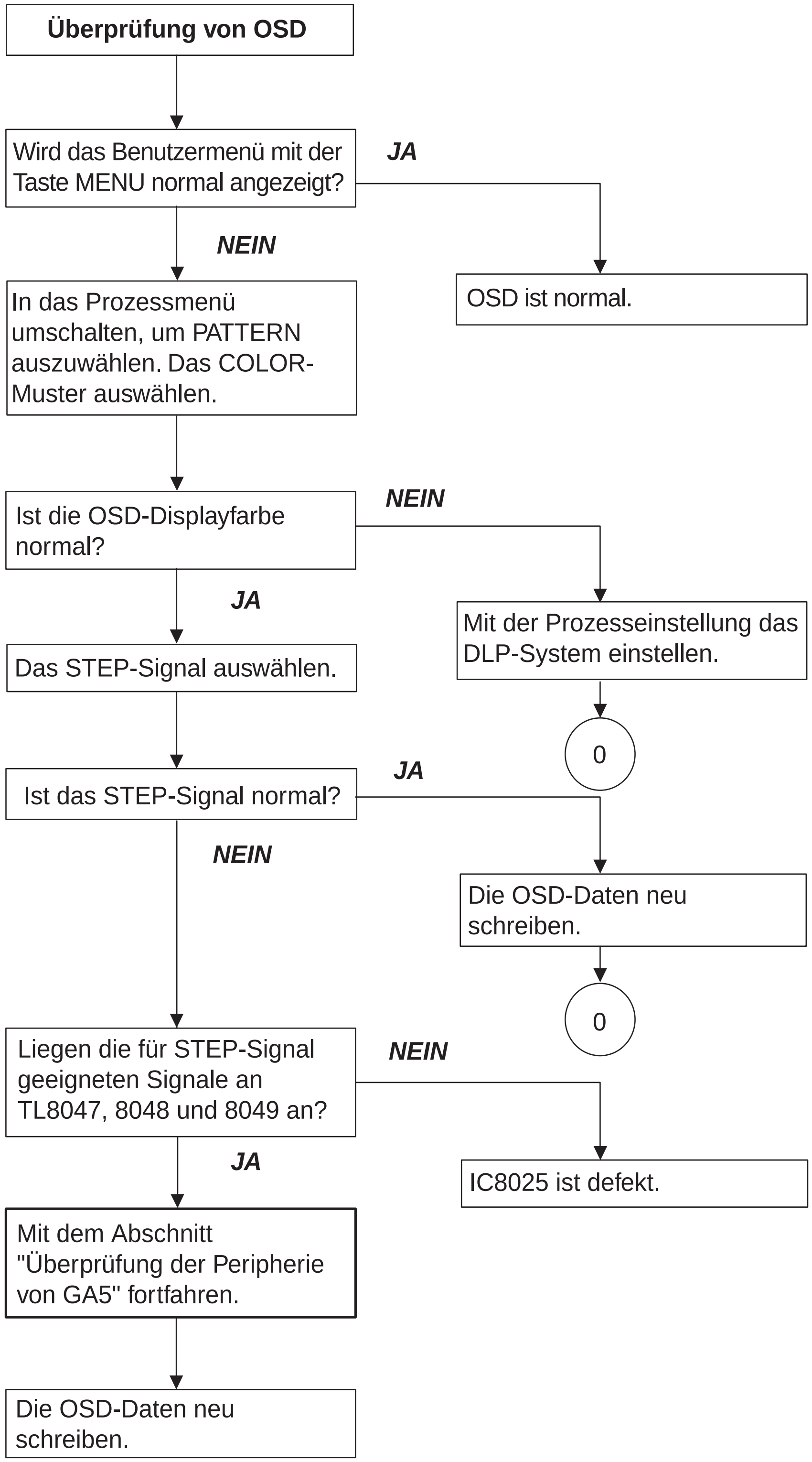
IC3007 und die peripheren Schaltungen überprüfen.

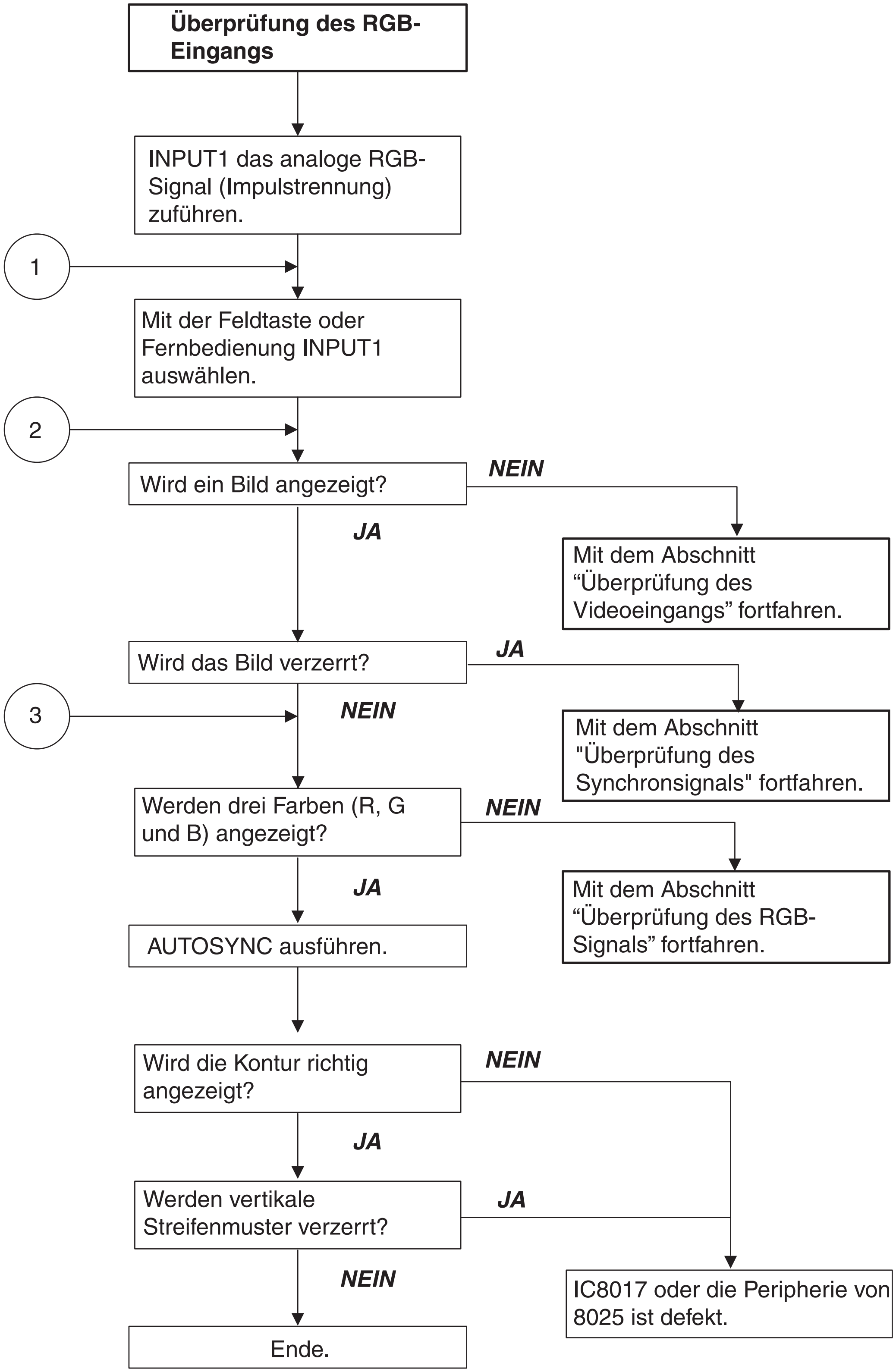
CN3001 ist defekt oder nicht stabil.

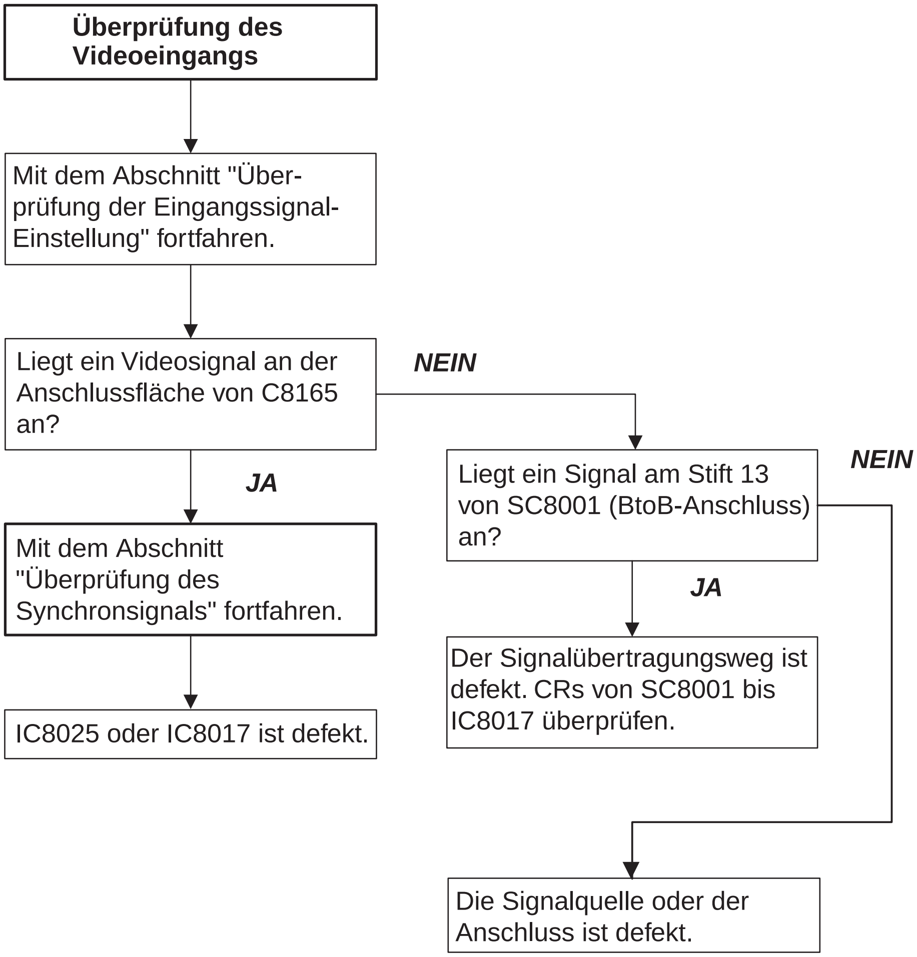

Überprüfung der Anschlusseinheit.
Das Eingangs/Ausgangssignal von Lan überprüfen.
Die Lan-Schaltkreis- überprüfen.
Liegen die Sendesignale an den Stiften (13, 14) von T9401 an? Liegen die Empfangssignale an den Stiften (8, 9) von T9401 an?
NEIN
T9401 und die peripheren Schaltungen überprüfen.
JA
Liegen die Sendesignale an den Stiften (1, 2) von T9401 an? Liegen die Sendesignale an den Stiften (6, 7) von T9401 an?
NEIN
T9401 ist defekt.
JA
CN3001 ist defekt oder nicht stabil.

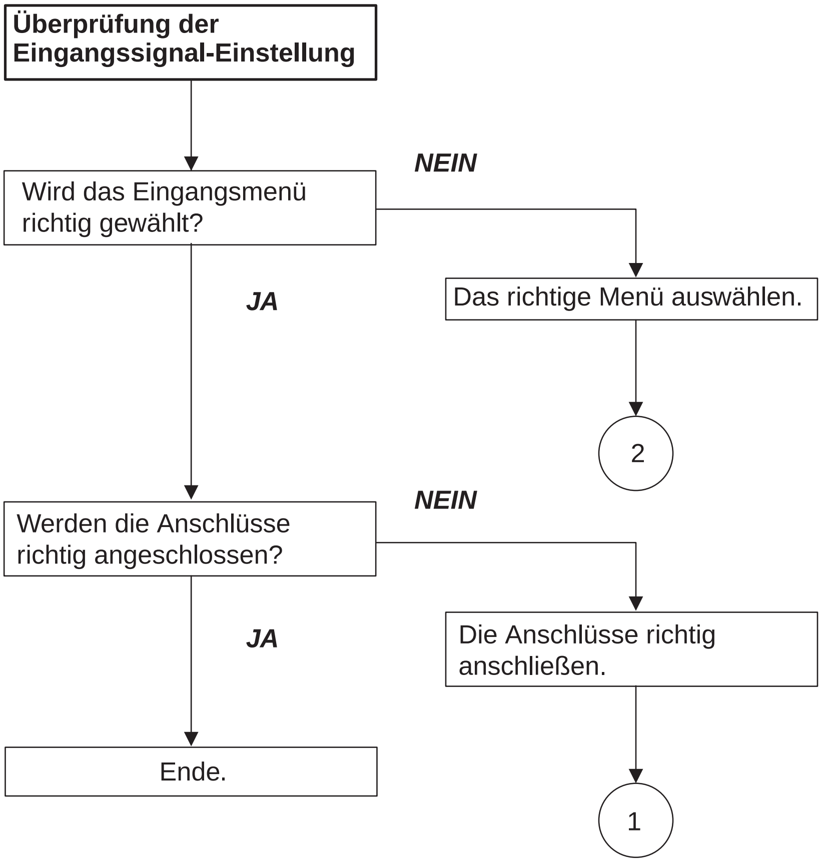

Die Eingangsleiterplatten-Einheit überprüfen.
Das Eingangssignal von INPUT1 überprüfen.
JA
Die RGB-Eingangssynchronsignal-Schaltkreise überprüfen.
JA
Liegen die Signale an C3031(B), C3038(G) bzw. C3041(R) an?
NEIN
C3031(B), C3038(G), C3041(R) und die peripheren Schaltungen überprüfen.
JA
Liegen die Synchronsignale ("B", "G" und "R") am Stift (16), (18) bzw. (20) von IC3007 an?
NEIN
IC3007 und die peripheren Schaltungen überprüfen.
JA
CN3001 ist defekt oder nicht stabil.

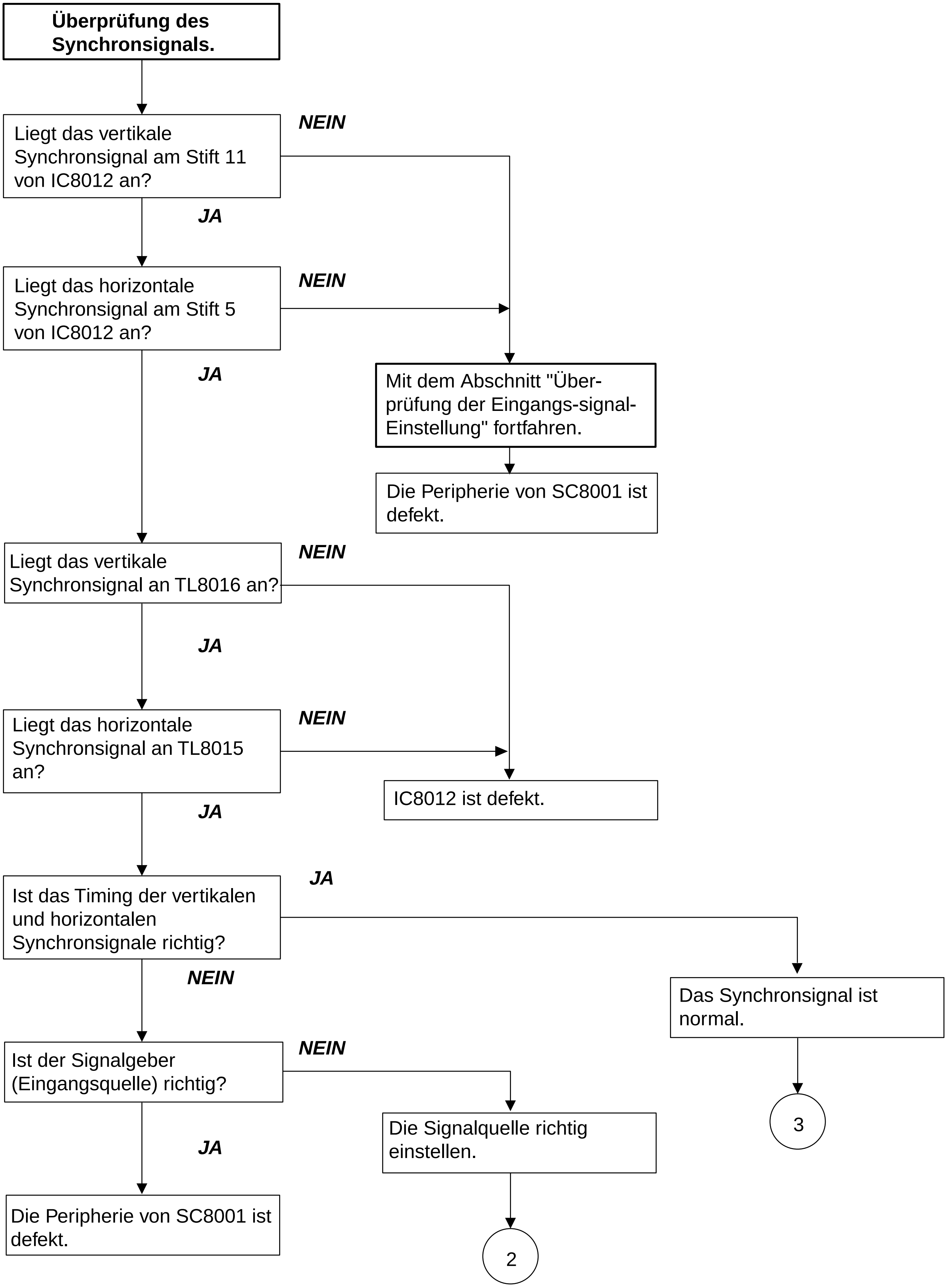

Überprüfung der PC-Leiterplatte
0
Wird das Benutzermenü angezeigt?
JA
NEIN
Überprüfung von OSD
Mit dem Abschnitt "Überprüfung des RGB-Eingangs" fortfahren.
Mit dem Abschnitt "Überprüfung der Komponente" fortfahren.
Mit dem Abschnitt "Überprüfung des VIDEO-Eingangs" fortfahren.
Überprüfung des DVI-Digitaleingangs
Ende.

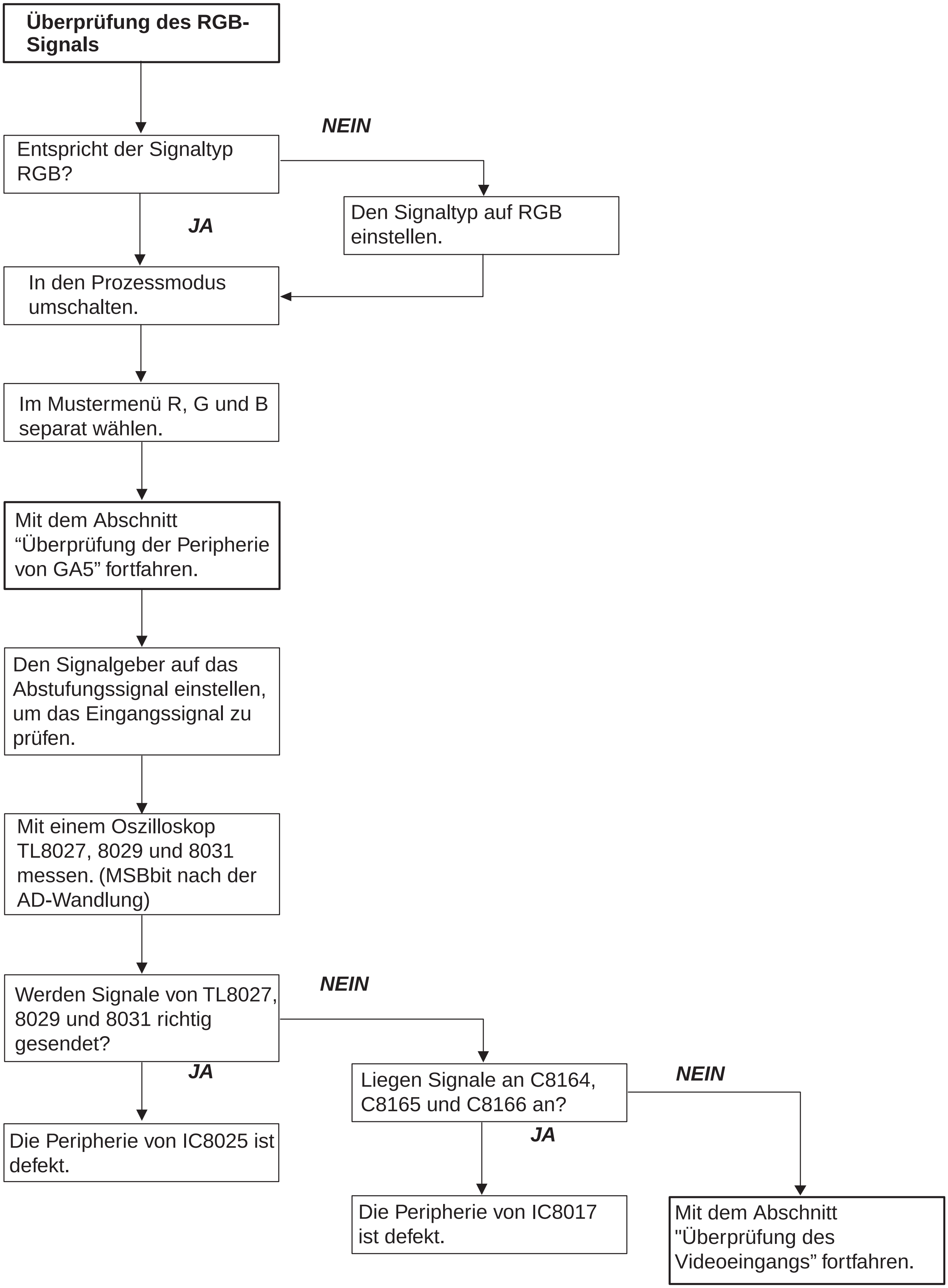

Überprüfung von OSD
Wird das Benutzermenü mit der Taste MENU normal angezeigt?
JA
OSD ist normal.
NEIN
In das Prozessmenü umschalten, um PATTERN auszuwählen. Das COLOR-Muster auswählen.
Ist die OSD-Displayfarbe normal?
NEIN
Mit der Prozesseinstellung das DLP-System einstellen.
0
JA
Das STEP-Signal auswählen.
Ist das STEP-Signal normal?
JA
Die OSD-Daten neu schreiben.
0
NEIN
Liegen die für STEP-Signal geeigneten Signale an TL8047, 8048 und 8049 an?
NEIN
IC8025 ist defekt.
JA
Mit dem Abschnitt "Überprüfung der Peripherie von GA5" fortfahren.
Die OSD-Daten neu schreiben.


Überprüfung des RGB-Eingangs
INPUT1 das analoge RGB-Signal (Impulstrennung) zuführen.
1
Mit der Feldtaste oder Fernbedienung INPUT1 auswählen.
2
Wird ein Bild angezeigt?
NEIN
Mit dem Abschnitt “Überprüfung des Videoeingangs” fortfahren.
JA
Wird das Bild verzerrt?
JA
Mit dem Abschnitt "Überprüfung des Synchronsignals" fortfahren.
3
NEIN
Werden drei Farben (R, G und B) angezeigt?
NEIN
Mit dem Abschnitt “Überprüfung des RGB-Signals” fortfahren.
JA
AUTOSYNC ausführen.
Wird die Kontur richtig angezeigt?
NEIN
JA
Werden vertikale Streifenmuster verzerrt?
JA
IC8017 oder die Peripherie von 8025 ist defekt.
NEIN
Ende.


Überprüfung des Videoeingangs
Mit dem Abschnitt "Überprüfung der Eingangssignal-Einstellung" fortfahren.
Liegt ein Videosignal an der Anschlussfläche von C8165 an?
NEIN
JA
Mit dem Abschnitt "Überprüfung des Synchronsignals" fortfahren.
IC8025 oder IC8017 ist defekt.
Liegt ein Signal am Stift 13 von SC8001 (BtoB-Anschluss) an?
NEIN
JA
Der Signalübertragungsweg ist defekt. CRs von SC8001 bis IC8017 überprüfen.
Die Signalquelle oder der Anschluss ist defekt.


Überprüfung der Eingangssignal-Einstellung
Wird das Eingangsmenü richtig gewählt?
NEIN
JA
Das richtige Menü auswählen.
2
Werden die Anschlüsse richtig angeschlossen?
NEIN
JA
Die Anschlüsse richtig anschließen.
Ende.
1


Überprüfung des Synchronsignals.
Liegt das vertikale Synchronsignal am Stift 11 von IC8012 an?
NEIN
JA
Liegt das horizontale Synchronsignal am Stift 5 von IC8012 an?
NEIN
JA
Mit dem Abschnitt "Überprüfung der Eingangs-signal-Einstellung" fortfahren.
Die Peripherie von SC8001 ist defekt.
Liegt das vertikale Synchronsignal an TL8016 an?
NEIN
JA
Liegt das horizontale Synchronsignal an TL8015 an?
NEIN
JA
IC8012 ist defekt.
Ist das Timing der vertikalen und horizontalen Synchronsignale richtig?
JA
NEIN
Das Synchronsignal ist normal.
Ist der Signalgeber (Eingangsquelle) richtig?
NEIN
JA
Die Signalquelle richtig einstellen.
3
Die Peripherie von SC8001 ist defekt.
2



**Überprüfung des RGB-Signals**

Entspricht der Signaltyp RGB?

Den Signaltyp auf RGB einstellen.

In den Prozessmodus umschalten.

Im Mustermenü R, G und B separat wählen.

Mit dem Abschnitt “Überprüfung der Peripherie von GA5” fortfahren.

Den Signalgeber auf das Abstufungssignal einstellen, um das Eingangssignal zu prüfen.

Mit einem Oszilloskop TL8027, 8029 und 8031 messen. (MSBbit nach der AD-Wandlung)

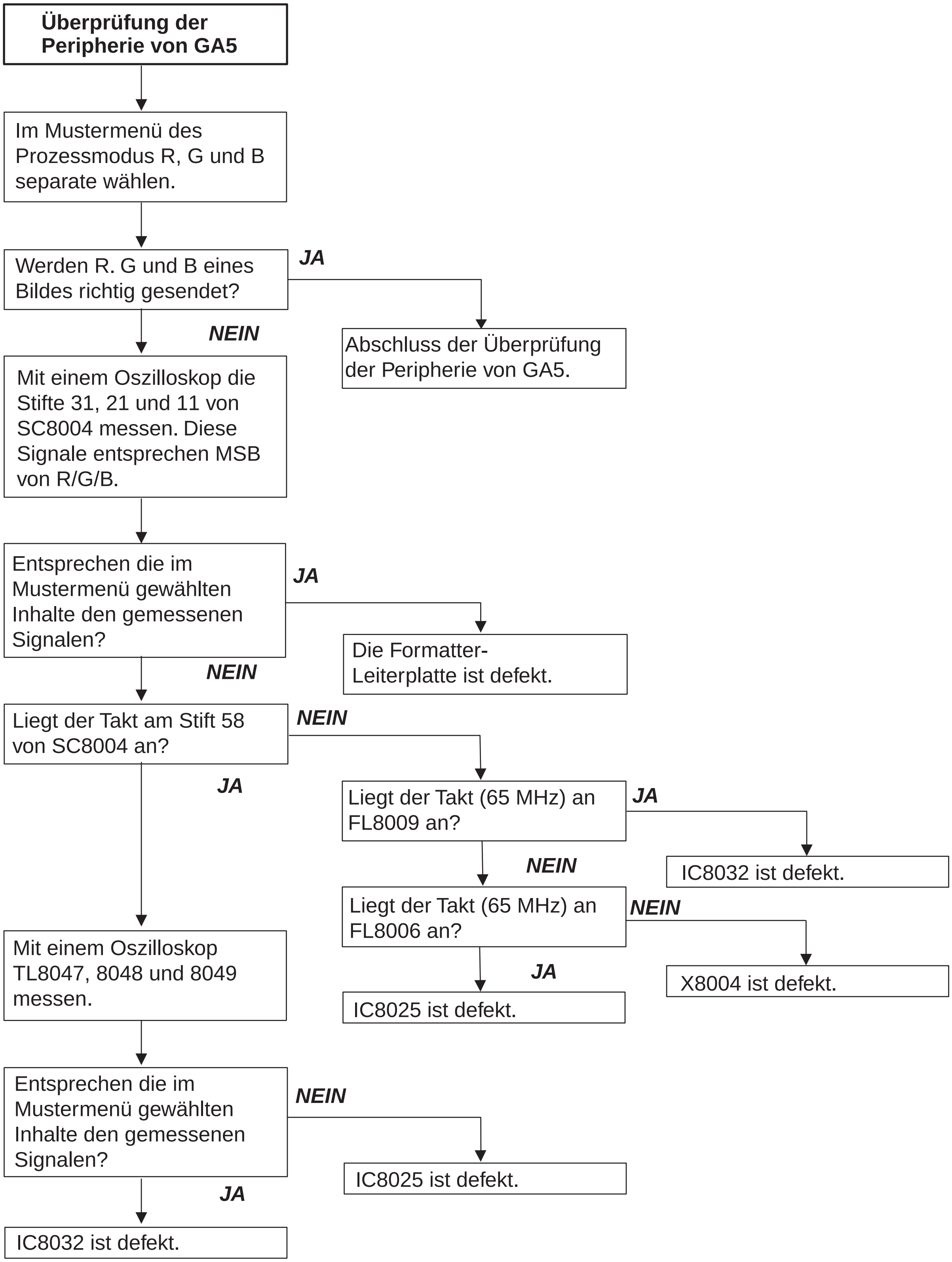
Werden Signale von TL8027, 8029 und 8031 richtig gesendet?

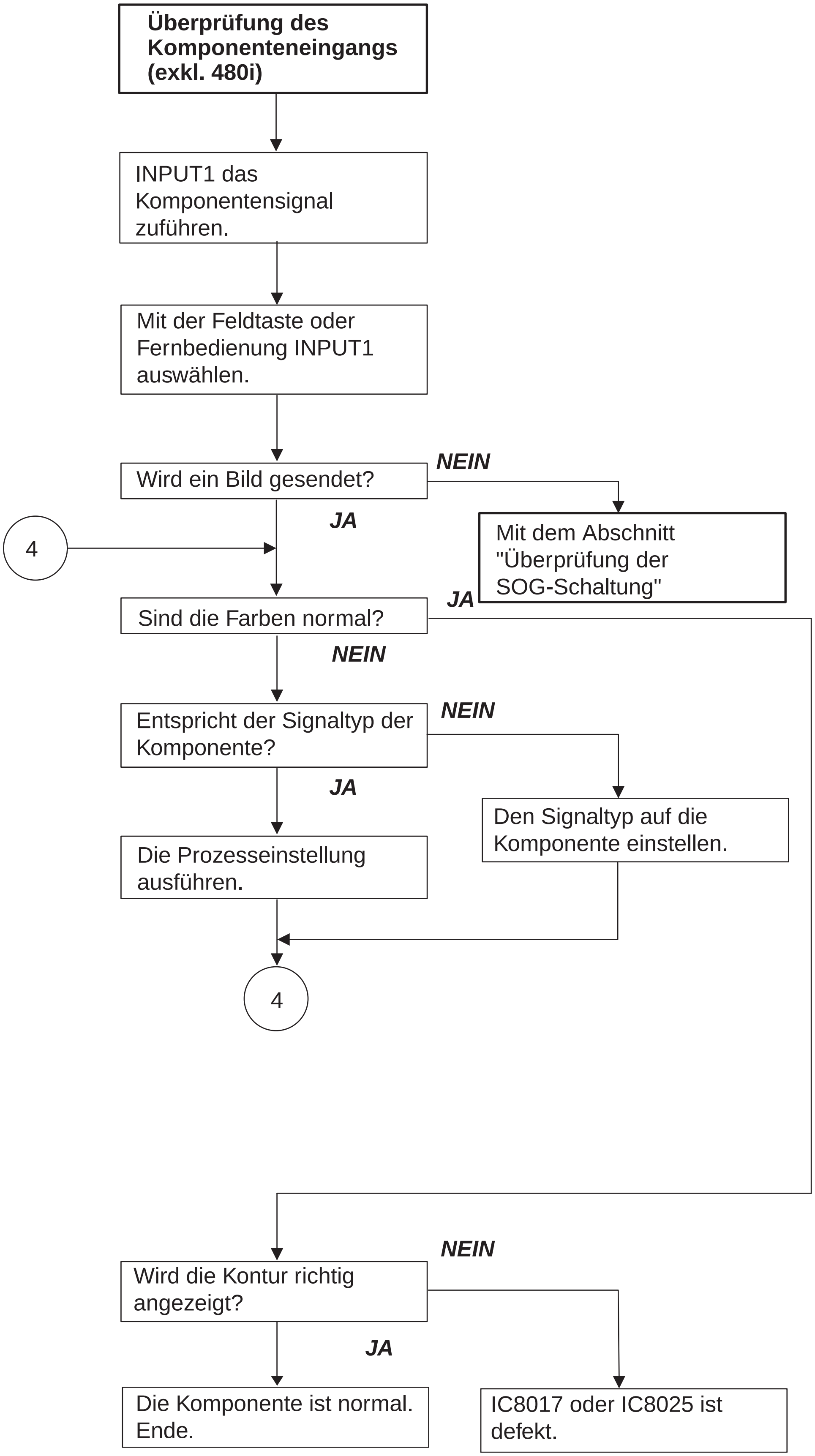
Die Peripherie von IC8025 ist defekt.

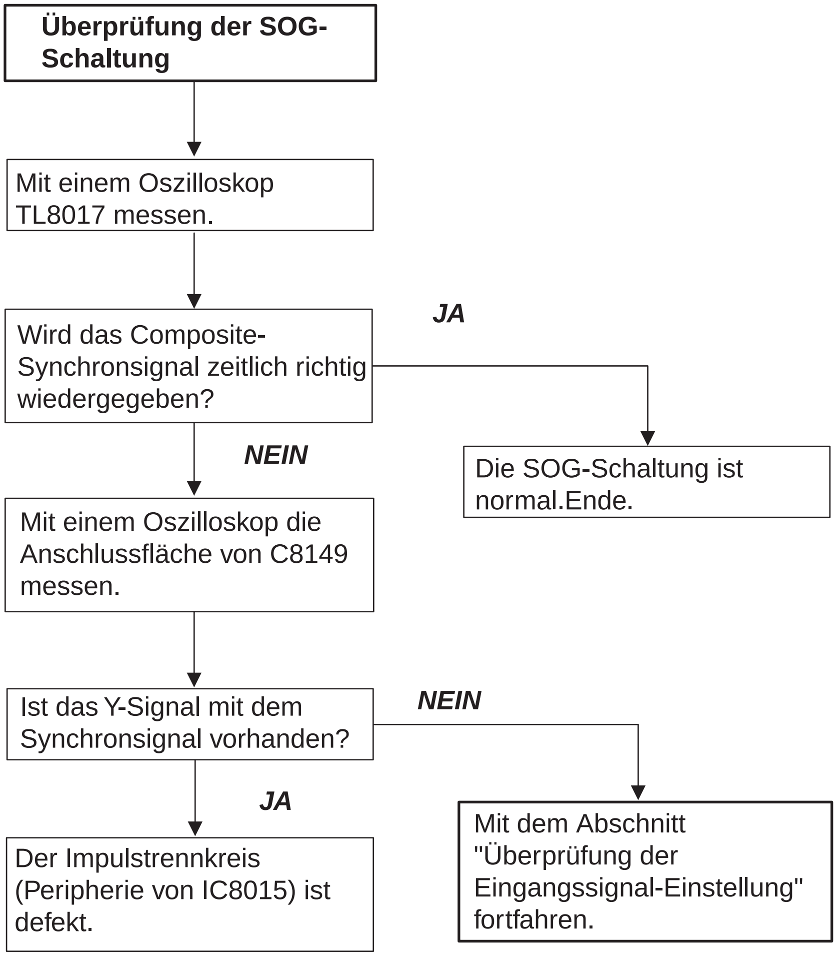
Liegen Signale an C8164, C8165 und C8166 an?

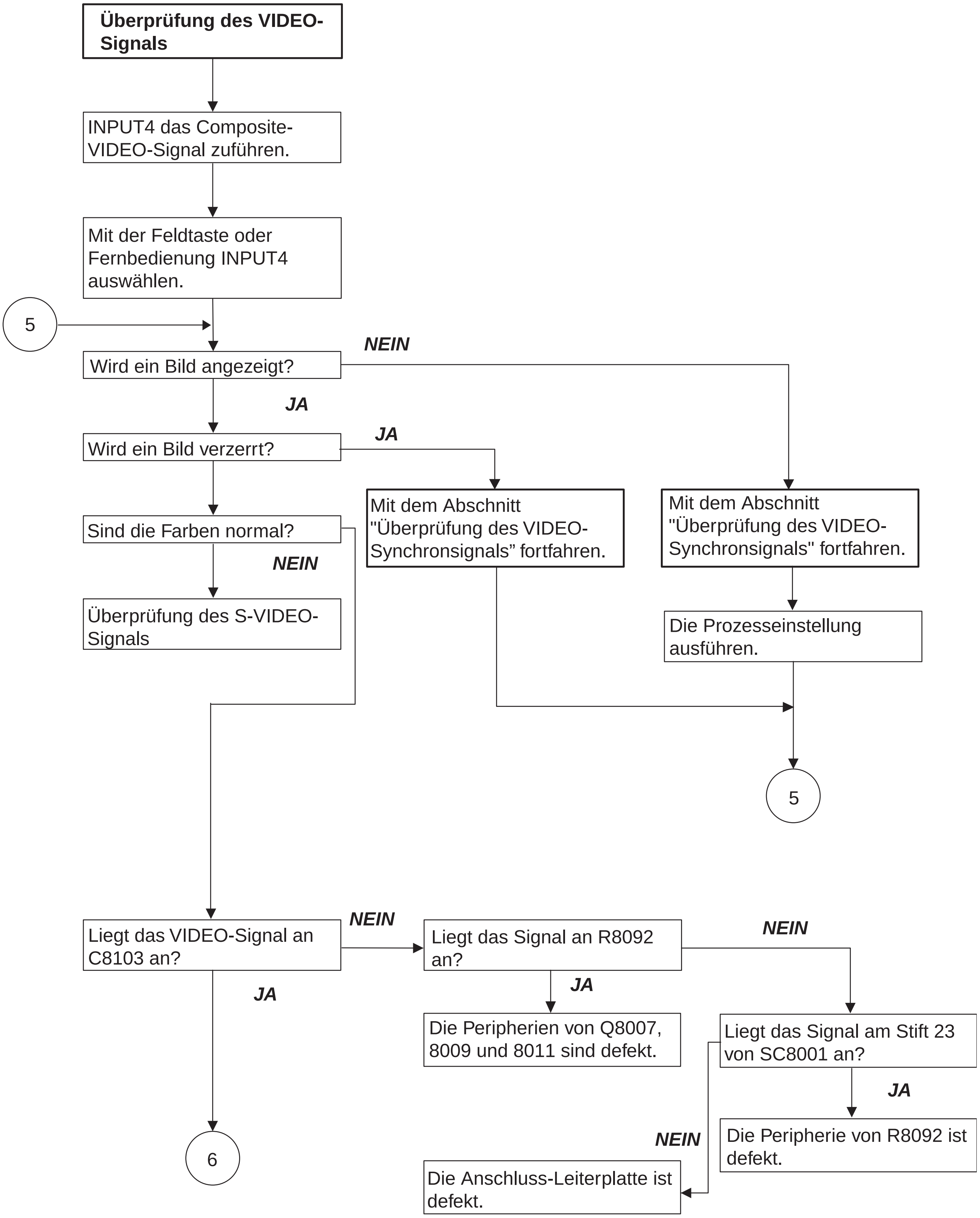
Die Peripherie von IC8017 ist defekt.

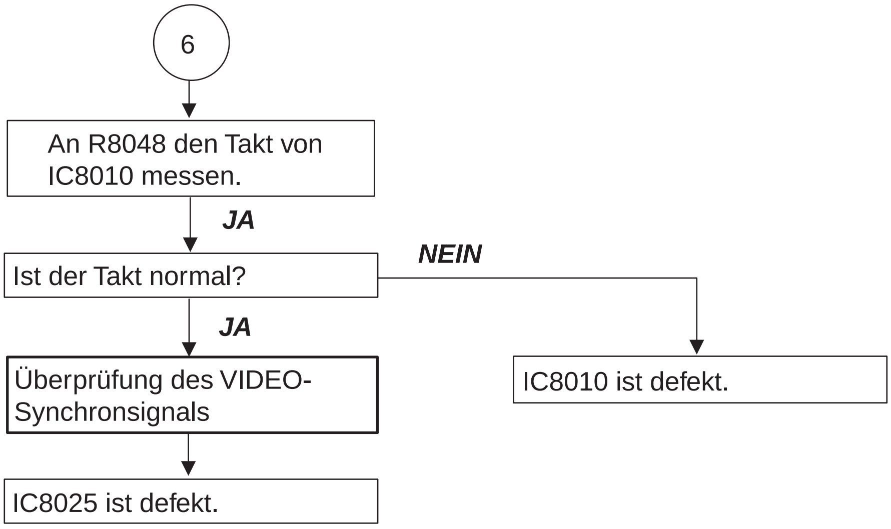
Mit dem Abschnitt "Überprüfung des Videoeingangs” fortfahren.

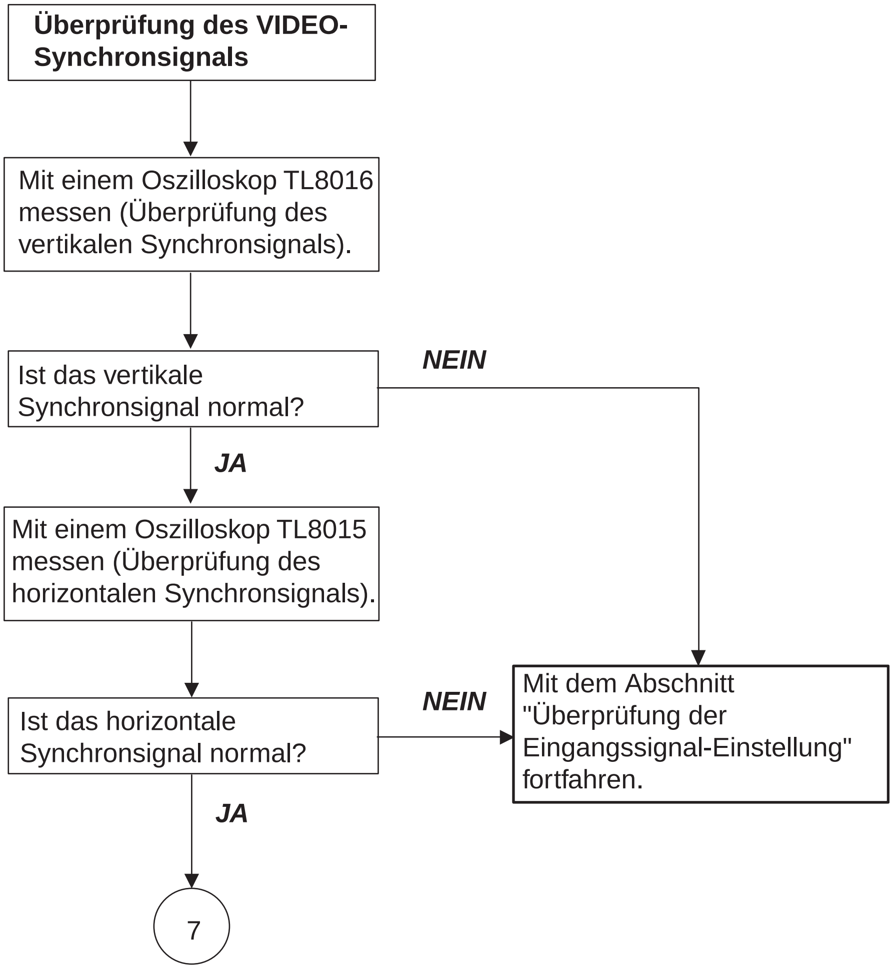

Überprüfung der Peripherie von GA5
Im Mustermenü des Prozessmodus R, G und B separate wählen.
Werden R. G und B eines Bildes richtig gesendet?
JA
Abschluss der Überprüfung der Peripherie von GA5.
NEIN
Mit einem Oszilloskop die Stifte 31, 21 und 11 von SC8004 messen. Diese Signale entsprechen MSB von R/G/B.
Entsprechen die im Mustermenü gewählten Inhalte den gemessenen Signalen?
JA
Die Formatter-Leiterplatte ist defekt.
NEIN
Liegt der Takt am Stift 58 von SC8004 an?
NEIN
Liegt der Takt (65 MHz) an FL8009 an?
JA
IC8032 ist defekt.
NEIN
Liegt der Takt (65 MHz) an FL8006 an?
NEIN
X8004 ist defekt.
JA
IC8025 ist defekt.
JA
Mit einem Oszilloskop TL8047, 8048 und 8049 messen.
Entsprechen die im Mustermenü gewählten Inhalte den gemessenen Signalen?
NEIN
IC8025 ist defekt.
JA
IC8032 ist defekt.

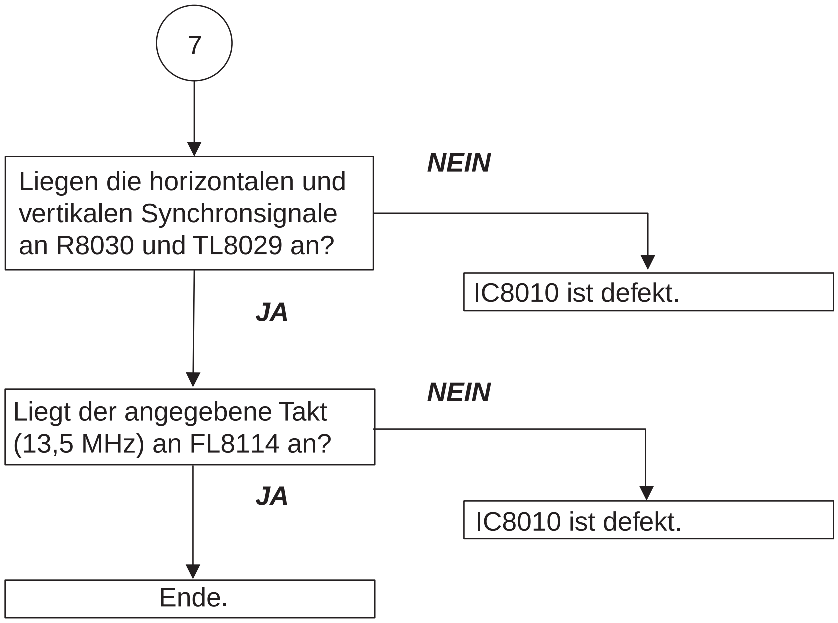

Überprüfung des Komponenteneingangs (exkl. 480i)
INPUT1 das Komponentensignal zuführen.
Mit der Feldtaste oder Fernbedienung INPUT1 auswählen.
Wird ein Bild gesendet?
NEIN
Mit dem Abschnitt "Überprüfung der SOG-Schaltung"
JA
4
Sind die Farben normal?
JA
NEIN
Entspricht der Signaltyp der Komponente?
NEIN
Den Signaltyp auf die Komponente einstellen.
JA
Die Prozesseinstellung ausführen.
4
Wird die Kontur richtig angezeigt?
NEIN
JA
Die Komponente ist normal. Ende.
IC8017 oder IC8025 ist defekt.

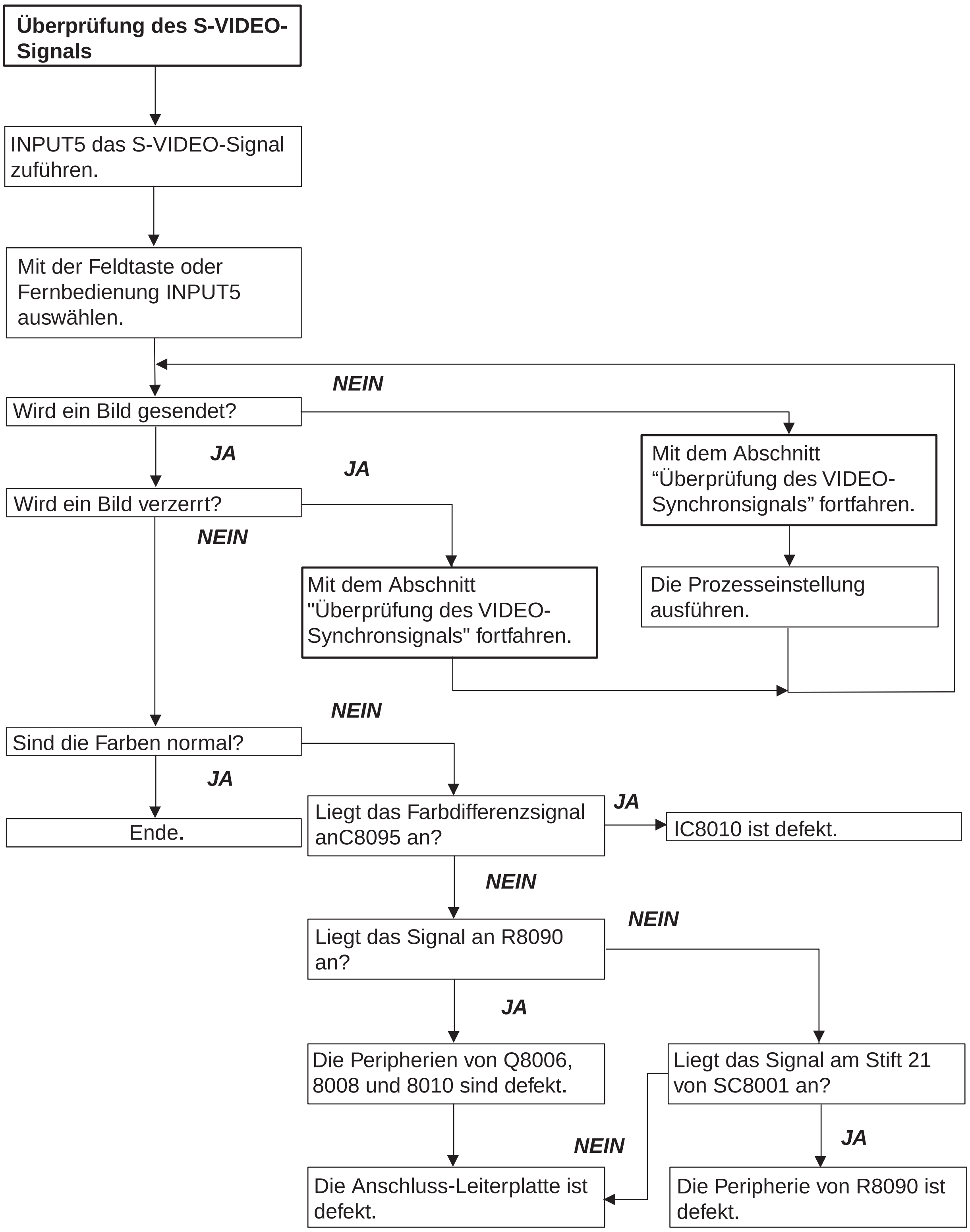

Überprüfung der SOG-Schaltung
Mit einem Oszilloskop TL8017 messen.
Wird das Composite-Synchronsignal zeitlich richtig wiedergegeben?
JA
Die SOG-Schaltung ist normal.Ende.
NEIN
Mit einem Oszilloskop die Anschlussfläche von C8149 messen.
Ist das Y-Signal mit dem Synchronsignal vorhanden?
NEIN
Mit dem Abschnitt "Überprüfung der Eingangssignal-Einstellung" fortfahren.
JA
Der Impulstrennkreis (Peripherie von IC8015) ist defekt.

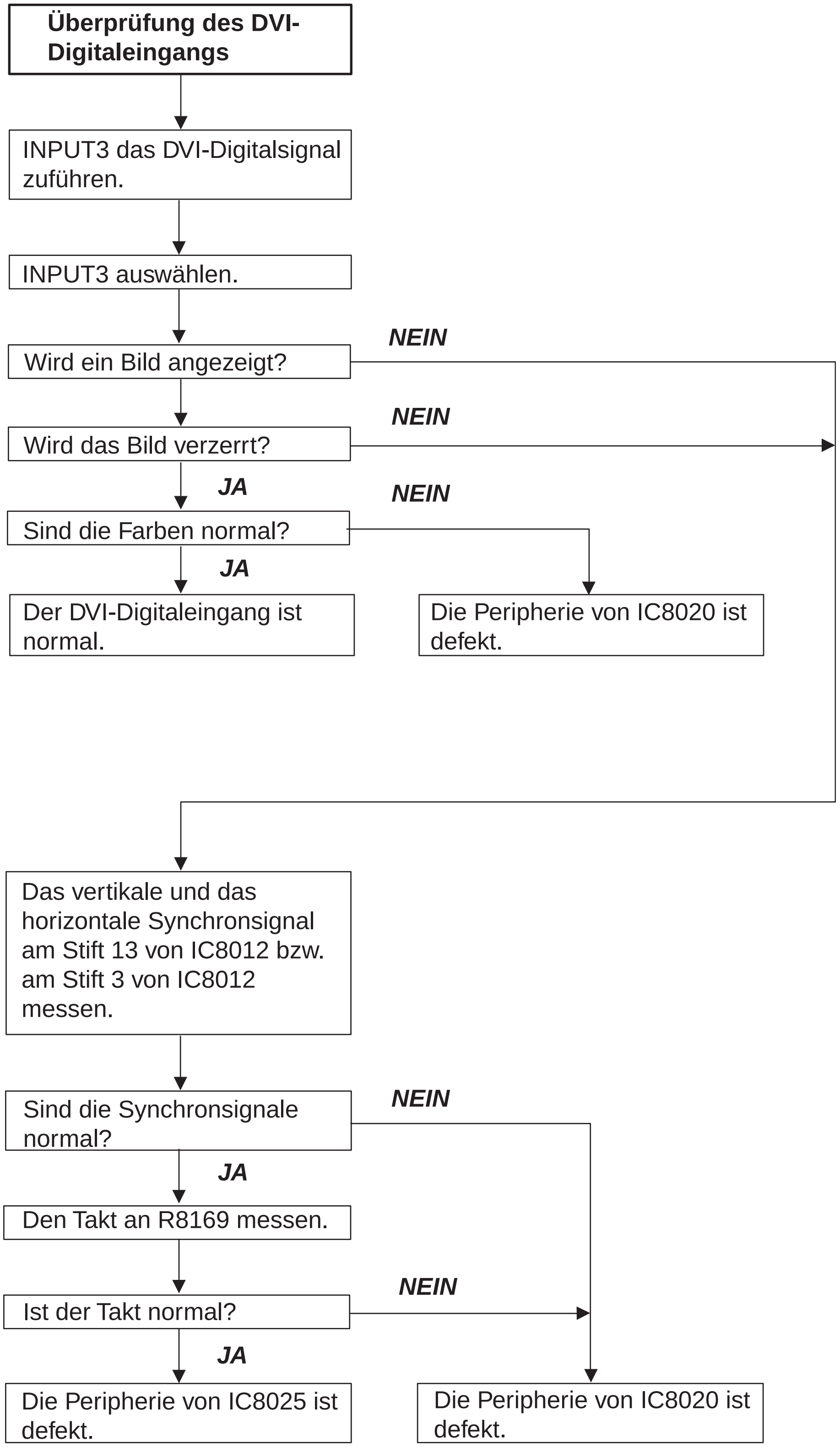

Überprüfung des VIDEO-Signals
INPUT4 das Composite-VIDEO-Signal zuführen.
Mit der Feldtaste oder Fernbedienung INPUT4 auswählen.
5
Wird ein Bild angezeigt?
NEIN
JA
Wird ein Bild verzerrt?
JA
Sind die Farben normal?
NEIN
Überprüfung des S-VIDEO-Signals
Mit dem Abschnitt "Überprüfung des VIDEO-Synchronsignals” fortfahren.
Mit dem Abschnitt "Überprüfung des VIDEO-Synchronsignals" fortfahren.
Die Prozesseinstellung ausführen.
5
Liegt das VIDEO-Signal an C8103 an?
NEIN
JA
6
Liegt das Signal an R8092 an?
JA
NEIN
Die Peripherien von Q8007, 8009 und 8011 sind defekt.
Liegt das Signal am Stift 23 von SC8001 an?
JA
NEIN
Die Peripherie von R8092 ist defekt.
Die Anschluss-Leiterplatte ist defekt.


6
An R8048 den Takt von IC8010 messen.
JA
Ist der Takt normal?
NEIN
JA
Überprüfung des VIDEO-Synchronsignals
IC8010 ist defekt.
IC8025 ist defekt.


Überprüfung des VIDEO-Synchronsignals
Mit einem Oszilloskop TL8016 messen (Überprüfung des vertikalen Synchronsignals).
Ist das vertikale Synchronsignal normal?
NEIN
JA
Mit einem Oszilloskop TL8015 messen (Überprüfung des horizontalen Synchronsignals).
Ist das horizontale Synchronsignal normal?
NEIN
Mit dem Abschnitt "Überprüfung der Eingangssignal-Einstellung" fortfahren.
JA
7

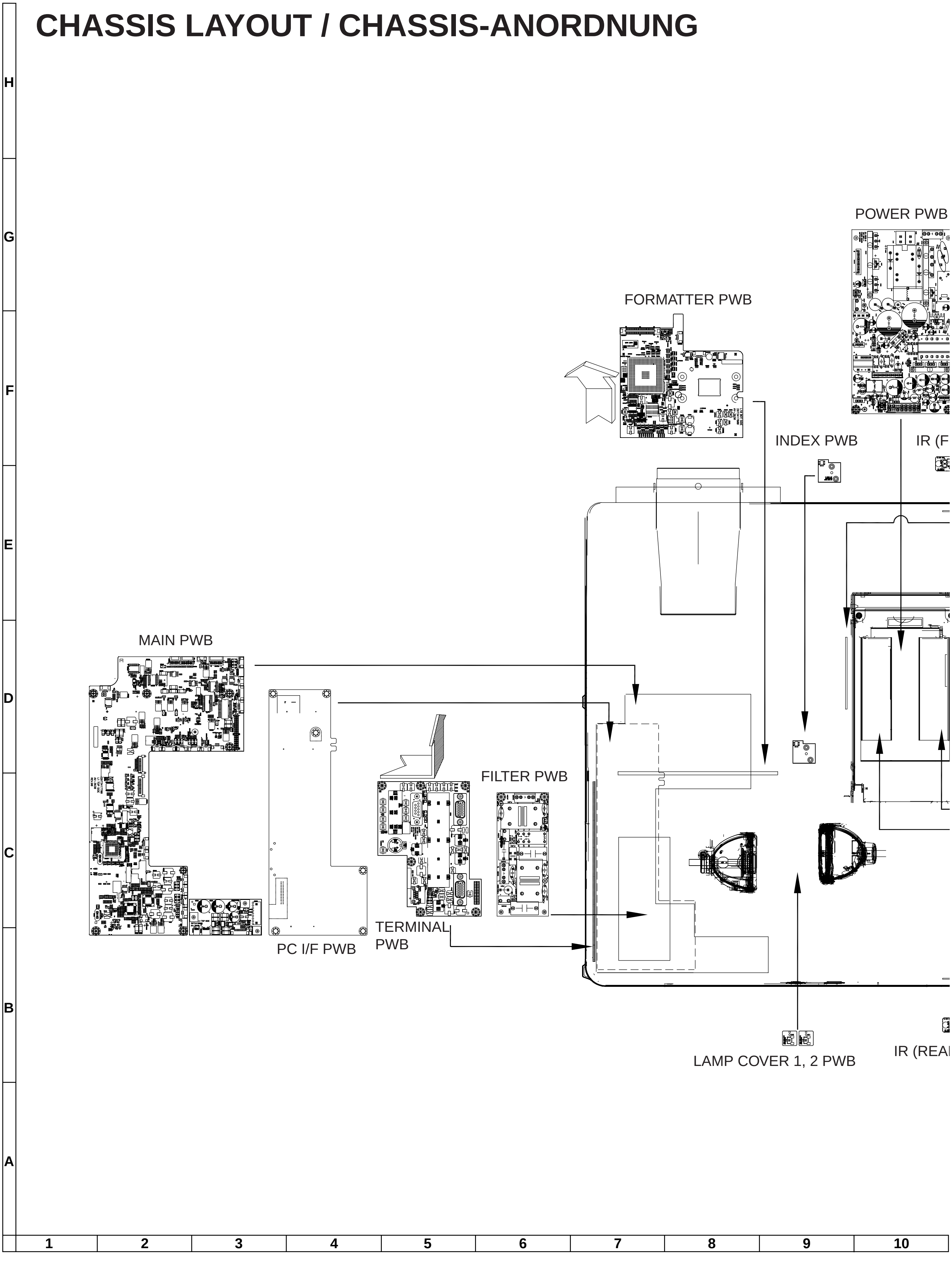

7
Liegen die horizontalen und vertikalen Synchronsignale an R8030 und TL8029 an?
NEIN
IC8010 ist defekt.
JA
Liegt der angegebene Takt (13,5 MHz) an FL8114 an?
NEIN
IC8010 ist defekt.
JA
Ende.

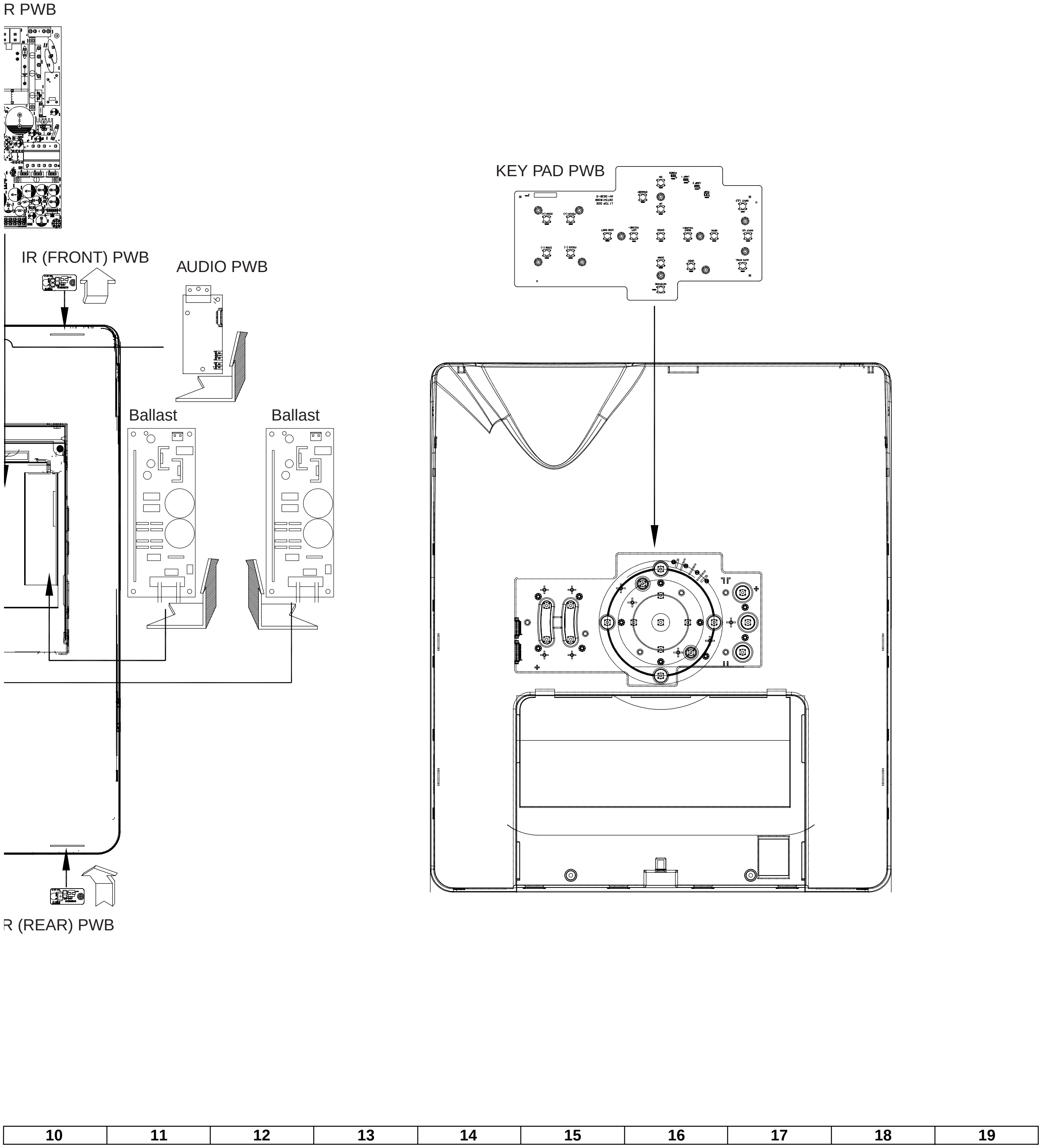

Überprüfung des S-VIDEO-Signals
INPUT5 das S-VIDEO-Signal zuführen.
Mit der Feldtaste oder Fernbedienung INPUT5 auswählen.
Wird ein Bild gesendet?
NEIN
Mit dem Abschnitt “Überprüfung des VIDEO-Synchronsignals” fortfahren.
Die Prozesseinstellung ausführen.
JA
Wird ein Bild verzerrt?
JA
NEIN
Mit dem Abschnitt "Überprüfung des VIDEO-Synchronsignals" fortfahren.
Sind die Farben normal?
NEIN
JA
Ende.
Liegt das Farbdifferenzsignal anC8095 an?
JA
IC8010 ist defekt.
NEIN
Liegt das Signal an R8090 an?
NEIN
JA
Die Peripherien von Q8006, 8008 und 8010 sind defekt.
Liegt das Signal am Stift 21 von SC8001 an?
NEIN
JA
Die Anschluss-Leiterplatte ist defekt.
Die Peripherie von R8090 ist defekt.


Überprüfung des DVI-Digitaleingangs
INPUT3 das DVI-Digitalsignal zuführen.
INPUT3 auswählen.
Wird ein Bild angezeigt?
NEIN
Wird das Bild verzerrt?
NEIN
JA
Sind die Farben normal?
NEIN
JA
Der DVI-Digitaleingang ist normal.
Die Peripherie von IC8020 ist defekt.
Das vertikale und das horizontale Synchronsignal am Stift 13 von IC8012 bzw. am Stift 3 von IC8012 messen.
Sind die Synchronsignale normal?
NEIN
JA
Den Takt an R8169 messen.
Ist der Takt normal?
NEIN
JA
Die Peripherie von IC8025 ist defekt.
Die Peripherie von IC8020 ist defekt.

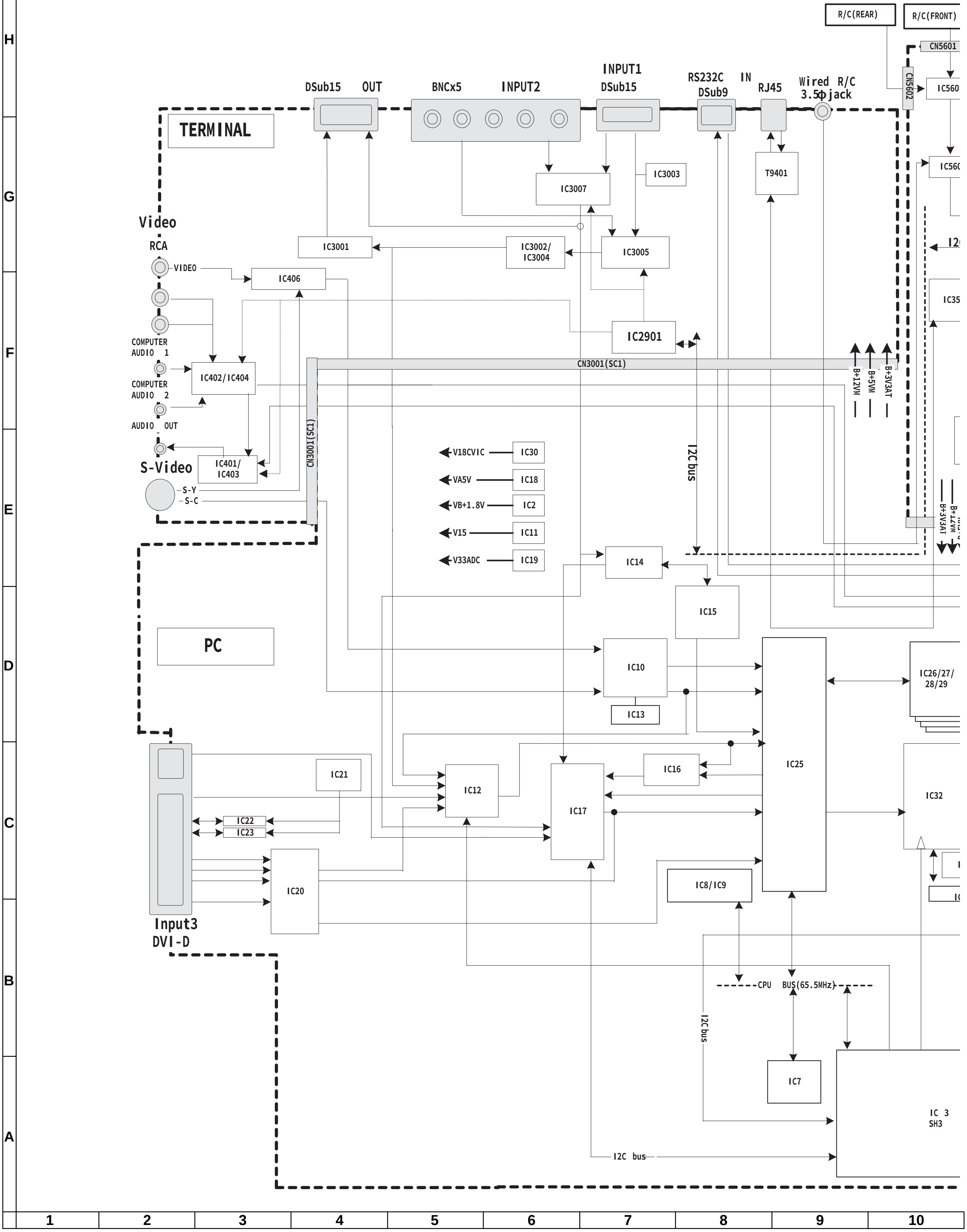
# -MEMO-

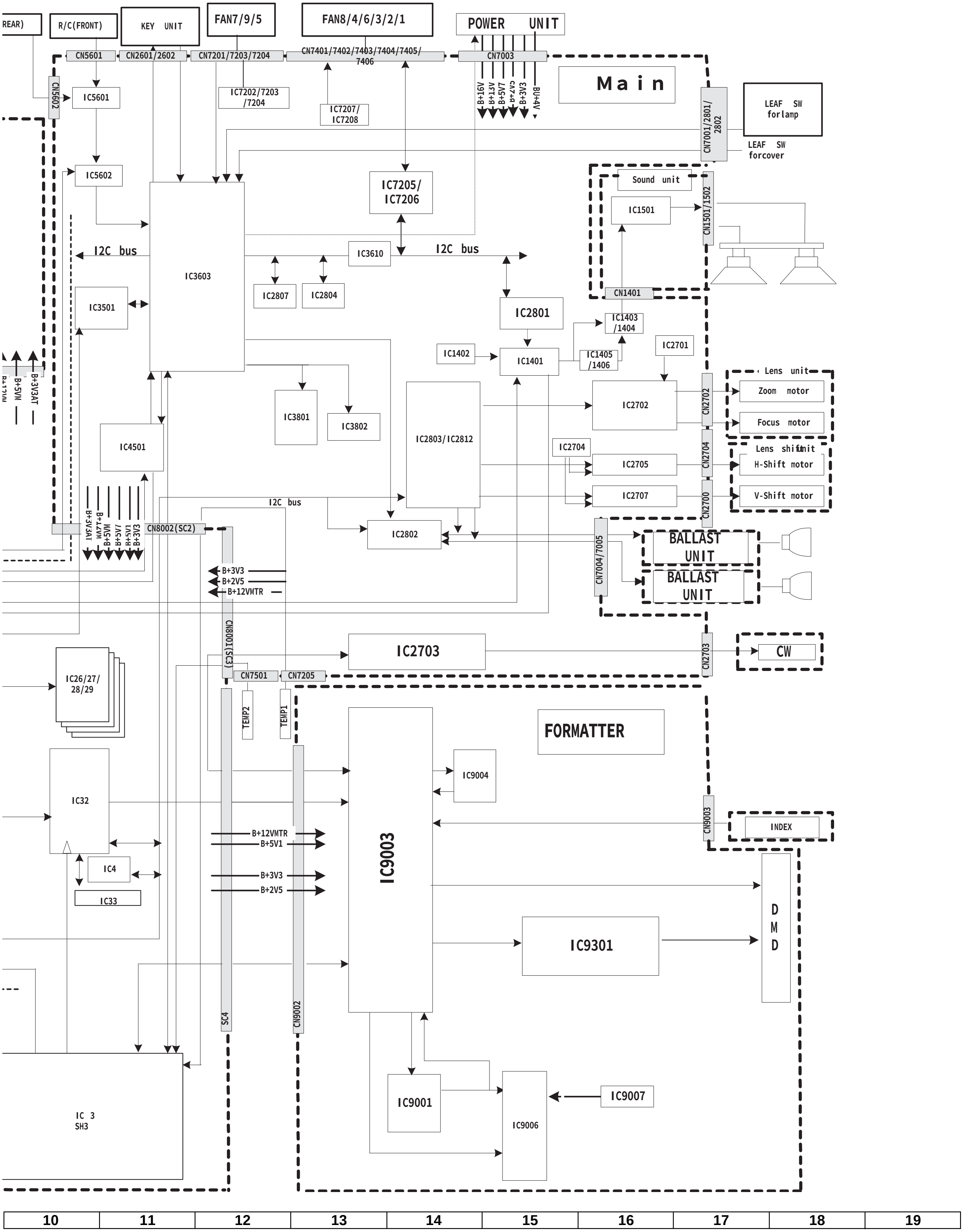
# CHASSIS LAYOUT / CHASSIS-ANORDNUNG


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
POWER PWB
FORMATTER PWB
INDEX PWB
IR (F
MAIN PWB
FILTER PWB
PC I/F PWB
TERMINAL
PWB
LAMP COVER 1, 2 PWB
IR (REA

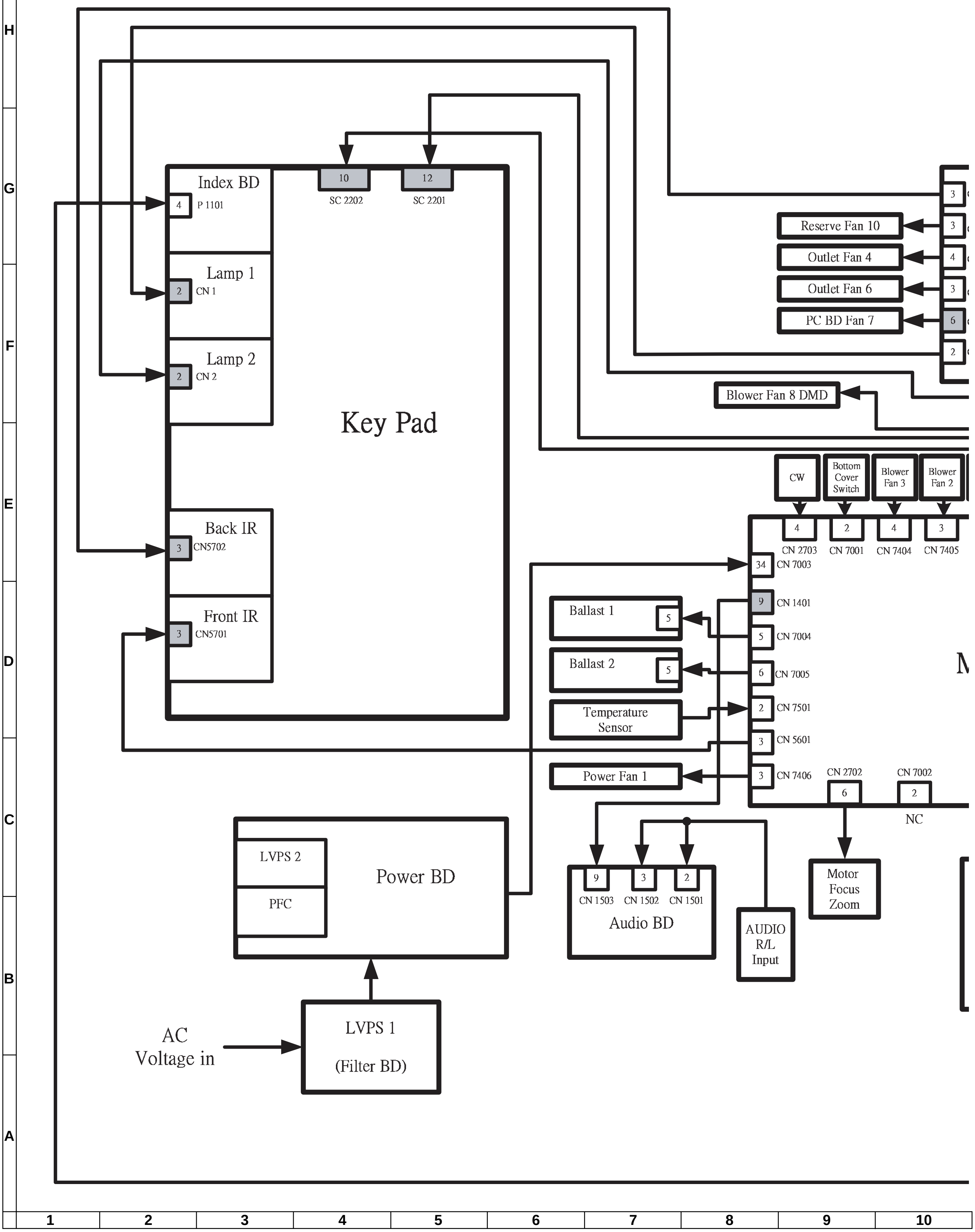

R PWB
KEY PAD PWB
IR (FRONT) PWB
AUDIO PWB
Ballast
Ballast
R (REAR) PWB
10
11
12
13
14
15
16
17
18
19

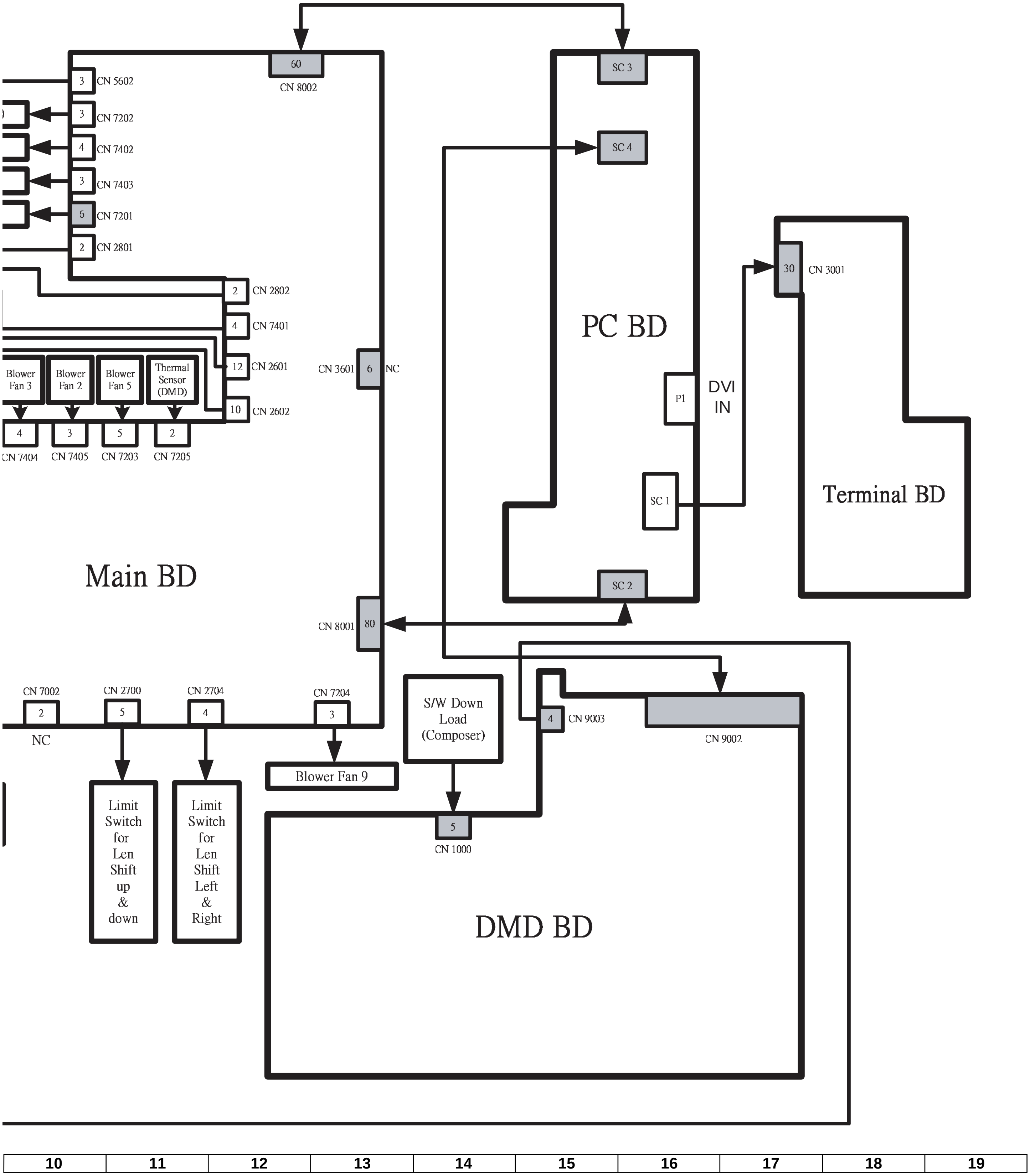
# BLOCK DIAGRAM / BLOCKSCHALTBILD


R/C(REAR)
R/C(FRONT)
CN5601
CN5602
IC560
IC560
INPUT1
DSub15 OUT
BNCx5 INPUT2
DSub15
RS232C IN
DSub9
RJ45
Wired R/C
3.5Φjack
TERMINAL
IC3007
IC3003
T9401
Video
RCA
VIDEO
IC3001
IC3002/
IC3004
IC3005
IC406
IC35
IC2901
COMPUTER
AUDIO 1
COMPUTER
AUDIO 2
AUDIO OUT
IC402/IC404
CN3001(SC1)
B+12VM
B+5VM
B+3V3AT
S-Video
S-Y
S-C
IC401/
IC403
V18CVIC
IC30
VA5V
IC18
VB+1.8V
IC2
V15
IC11
V33ADC
IC19
I2C bus
IC14
IC15
PC
IC10
IC13
IC25
IC26/27/
28/29
IC21
IC12
IC16
IC17
IC32
IC22
IC23
IC20
IC8/IC9
Input3
DVI-D
CPU BUS(65.5MHz)
I2C bus
IC7
IC 3
SH3
I2C bus
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

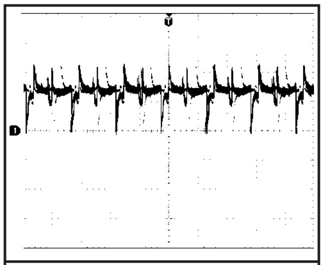

REAR)
R/C(FRONT)
KEY UNIT
FAN7/9/5
FAN8/4/6/3/2/1
POWER UNIT
CN5601
CN2601/2602
CN7201/7203/7204
CN7401/7402/7403/7404/7405/7406
CN7003
Main
CN5602
IC5601
IC7202/7203/7204
IC7207/IC7208
B+16V
B+13V
B+5V7
B+4V7
B+3V3
B+3V3
BU+4V
CN7001/2801/2802
LEAF SW forlamp
LEAF SW forcover
IC5602
IC3603
IC7205/IC7206
Sound unit
IC1501
CN1501/1502
I2C bus
IC3610
I2C bus
IC3501
IC2807
IC2804
IC2801
CN1401
IC1403/1404
B+3V3AT
B+5VM
IC1402
IC1401
IC1405/1406
IC2701
Lens unit
Zoom motor
Focus motor
CN2702
IC2702
IC3801
IC3802
IC2803/IC2812
IC4501
IC2704
IC2705
CN2704
Lens shift unit
H-Shift motor
V-Shift motor
IC2707
CN2700
B+3V3AT
B+12VM
B+5VM
B+5V7
B+5V1
B+3V3
CN8002(SC2)
I2C bus
IC2802
CN7004/7005
BALLAST UNIT
BALLAST UNIT
B+3V3
B+2V5
B+12VMTR
CN8001(SC3)
IC2703
CN2703
CW
IC26/27/28/29
CN7501
CN7205
TEMP2
TEMP1
FORMATTER
IC9004
IC32
CN9003
INDEX
B+12VMTR
B+5V1
IC9003
IC4
B+3V3
B+2V5
IC33
DMD
IC9301
SC4
CN9002
IC 3
SH3
IC9001
IC9006
IC9007
10
11
12
13
14
15
16
17
18
19

# OVERALL WIRING DIAGRAM / GESAMTSCHALTPLAN

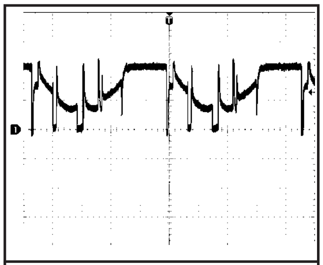

H
G
F
E
D
C
B
A
Index BD
4
P 1101
10
SC 2202
12
SC 2201
Lamp 1
2
CN 1
Lamp 2
2
CN 2
Key Pad
Back IR
3
CN5702
Front IR
3
CN5701
3
Reserve Fan 10
3
Outlet Fan 4
4
Outlet Fan 6
3
PC BD Fan 7
6
2
Blower Fan 8 DMD
CW
Bottom Cover Switch
Blower Fan 3
Blower Fan 2
4
CN 2703
2
CN 7001
4
CN 7404
3
CN 7405
34
CN 7003
Ballast 1
5
9
CN 1401
5
CN 7004
Ballast 2
5
6
CN 7005
Temperature Sensor
2
CN 7501
3
CN 5601
Power Fan 1
3
CN 7406
CN 2702
6
CN 7002
2
NC
M
LVPS 2
PFC
Power BD
9
CN 1503
3
CN 1502
2
CN 1501
Audio BD
AUDIO R/L Input
Motor Focus Zoom
AC Voltage in
LVPS 1
(Filter BD)
1
2
3
4
5
6
7
8
9
10


60
CN 8002
SC 3
SC 4
3 CN 5602
3 CN 7202
4 CN 7402
3 CN 7403
6 CN 7201
2 CN 2801
2 CN 2802
4 CN 7401
12 CN 2601
10 CN 2602
Blower Fan 3
Blower Fan 2
Blower Fan 5
Thermal Sensor (DMD)
4 CN 7404
3 CN 7405
5 CN 7203
2 CN 7205
CN 3601 6 NC
PC BD
30 CN 3001
P1
DVI IN
SC 1
Terminal BD
Main BD
SC 2
CN 8001 80
CN 7002 2 NC
CN 2700 5
CN 2704 4
CN 7204 3
S/W Down Load (Composer)
4 CN 9003
CN 9002
Blower Fan 9
Limit Switch for Len Shift up & down
Limit Switch for Len Shift Left & Right
5 CN 1000
DMD BD
10
11
12
13
14
15
16
17
18
19

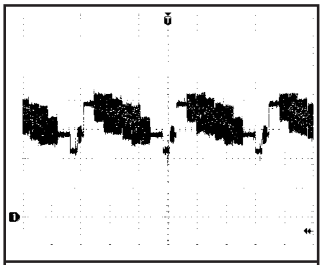
# WAVEFORMS / WELLENFORMEN



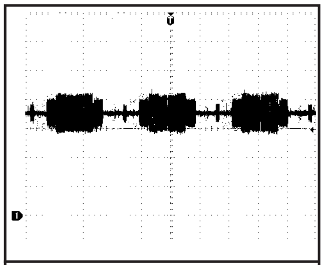
① CN2703 4-pin
(MAIN PWB)
(CWCTR)
H:200µ sec/div
V:5V/div



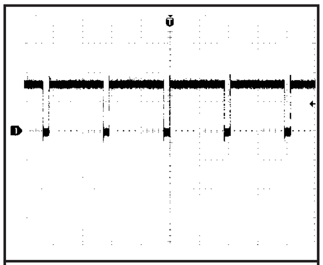
② CN2703 1-pin
(MAIN PWB)
(CWY1)
H:200µ sec/div
V:5V/div



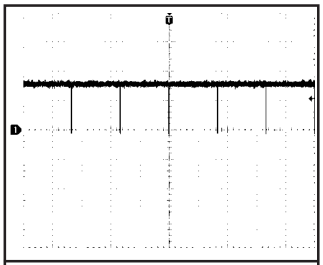
③ CN3001 23-pin
(TERMINAL PWB)
(VIDEOI)
H:20µ sec/div
V:500mV/div



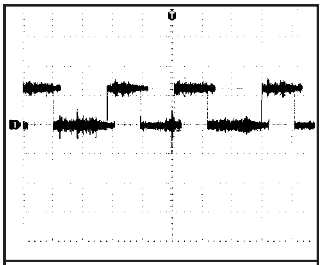
④ CN3001 21-pin
(TERMINAL PWB)
(S-CI)
H:20µ sec/div
V:500mV/div



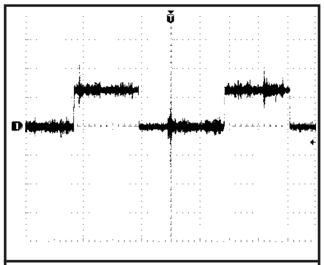
⑤ IC17 45-pin
(PC I/F PWB)
(AD-HSIN)
H:10µ sec/div
V:2V/div



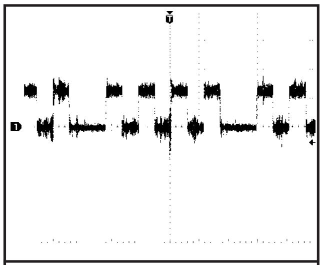
⑥ IC17 44-pin
(PC I/F PWB)
(PCV)
H:10m sec/div
V:2V/div



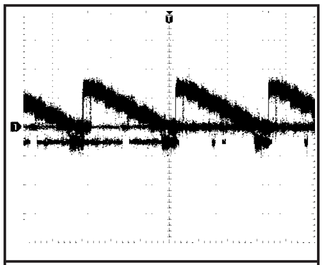
⑦ IC17 5-pin
(PC I/F PWB)
(RAIN0)
H:4µ sec/div
V:500mV/div



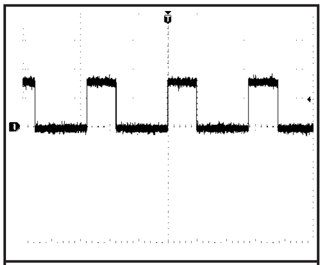
⑧ IC17 13-pin
(PC I/F PWB)
(GAIN0)
H:4µ sec/div
V:500mV/div



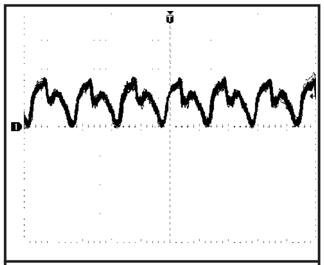
⑨ IC17 20-pin
(PC I/F PWB)
(BAIN0)
H:4µ sec/div
V:500mV/div



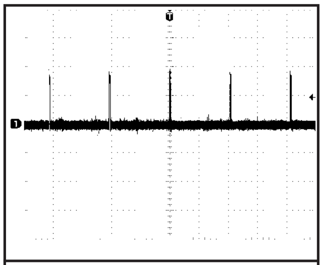
⑩ IC17 17-pin
(PC I/F PWB)
(GAIN1)
H:20µ sec/div
V:500mV/div



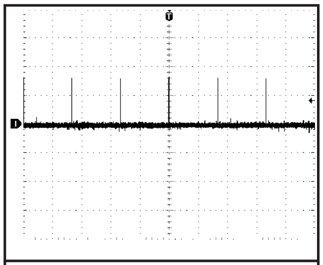
⑪ CN9002 38-pin
(FORMATTER PWB)
(LAMPEN)
H:2m sec/div
V:2V/div



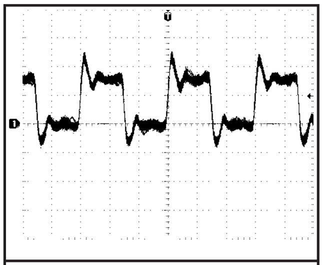
⑫ CN9002 58-pin
(FORMATTER PWB)
(CLKIN)
H:10n sec/div
V:1V/div



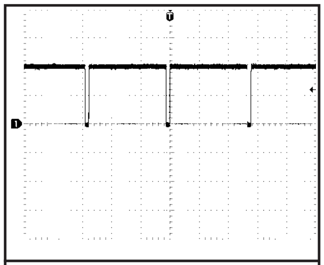
⑬ CN9002 60-pin
(FORMATTER PWB)
(HSYNCZ)
H:10µsec/div
V:2V/div



⑭ CN9002 61-pin
(FORMATTER PWB)
(VSYNCZ)
H:10m sec/div
V:2V/div

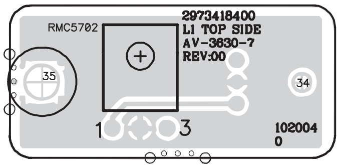


⑮ CN9002 64-pin
(FORMATTER PWB)
(SSPO_CLK)
H:40n sec/div
V:2V/div

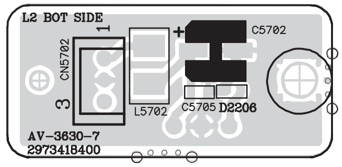


⑯ CN9003 2-pin
(FORMATTER PWB)
(CWINDEX)
H:2m sec/div
V:2V/div

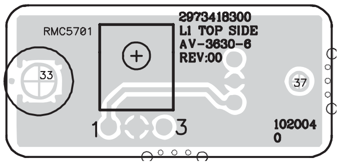
# PRINTED WIRING BOARD ASSEMBLIES
# LEITERPLATTENEINHEITEN


RMC5702
2973418400
L1 TOP SIDE
AV-3630-7
REV:00
35
34
1
3
102004
0

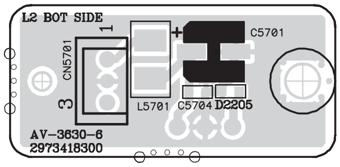
IR (FRONT) Unit (Side A)
IR(VOLDER)-Einheit (Seite-A)


L2 BOT SIDE
1
CN5702
3
L5702
C5702
C5705
D2206
AV-3630-7
2973418400

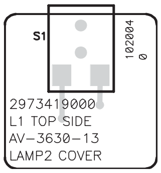
IR (FRONT) Unit (Side B)
IR(VOLDER)-Einheit (Seite-B)


RMC5701
2973418300
L1 TOP SIDE
AV-3630-6
REV:00
33
37
1
3
102004
0

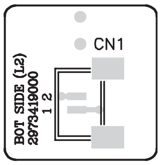
IR (BACK) Unit (Side A)
IR(RÜCKEN)-Einheit (Seite-A)


L2 BOT SIDE
1
CN5701
3
L5701
C5701
C5704
D2205
AV-3630-6
2973418300

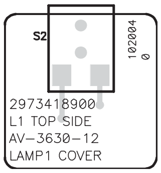
IR (BACK) Unit (Side B)
IR(RÜCKEN)-Einheit (Seite-B)


S1
102004
0
2973419000
L1 TOP SIDE
AV-3630-13
LAMP2 COVER

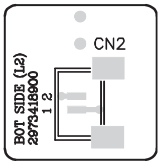
LAMP1 COVER Unit (Side A)
LAMPEN1-COVER-Einheit (Seite-A)


CN1
BOT SIDE (L2)
2973419000
1 2

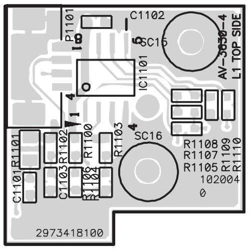
LAMP1 COVER Unit (Side B)
LAMPEN1-COVER-Einheit (Seite-B)


S2
102004
0
2973418900
L1 TOP SIDE
AV-3630-12
LAMP1 COVER

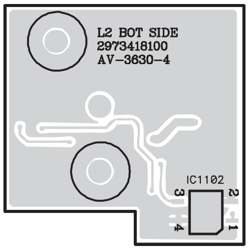
LAMP2 COVER Unit (Side A)
LAMPEN2-COVER-Einheit (Seite-A)


CN2
BOT SIDE (L2)
2973418900
1 2

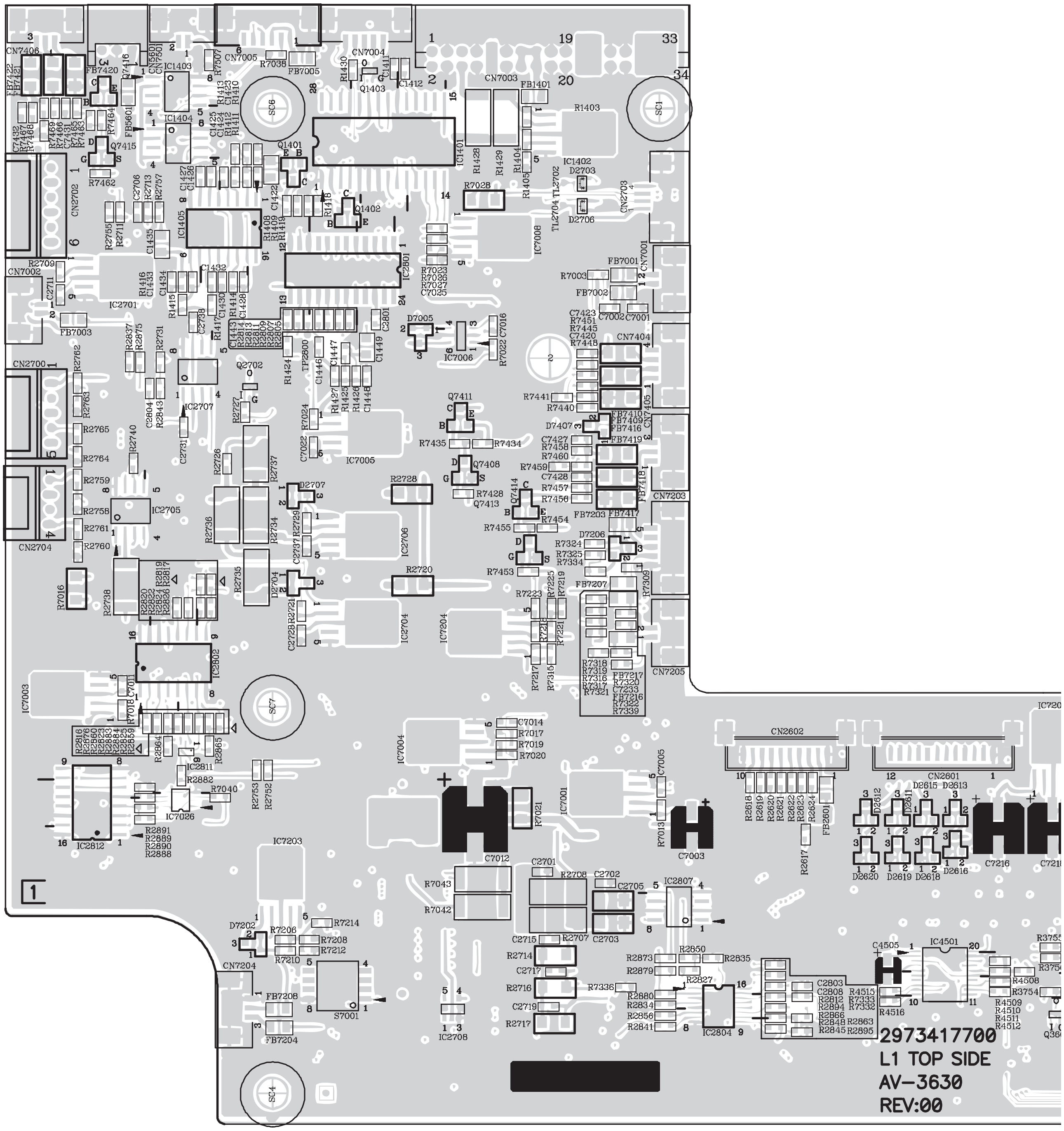
LAMP2 COVER Unit (Side B)
LAMPEN2-COVER-Einheit (Seite-B)


P1101
C1102
SC15
IC1101
AV-3630-4
L1 TOP SIDE
8
5
1
4
4
C1101
R1101
C1103
R1102
R1106
R1104
R1100
R1103
SC16
R1108
R1107
R1105
R1109
R1110
102004
0
2973418100

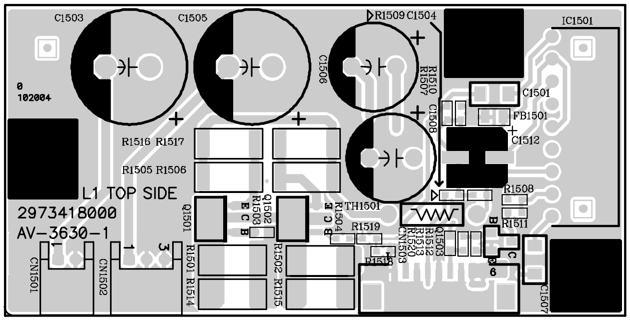
INDEX Unit (Side A)
INDEX-Einheit (Seite-A)


L2 BOT SIDE
2973418100
AV-3630-4
IC1102
3
2
4
1

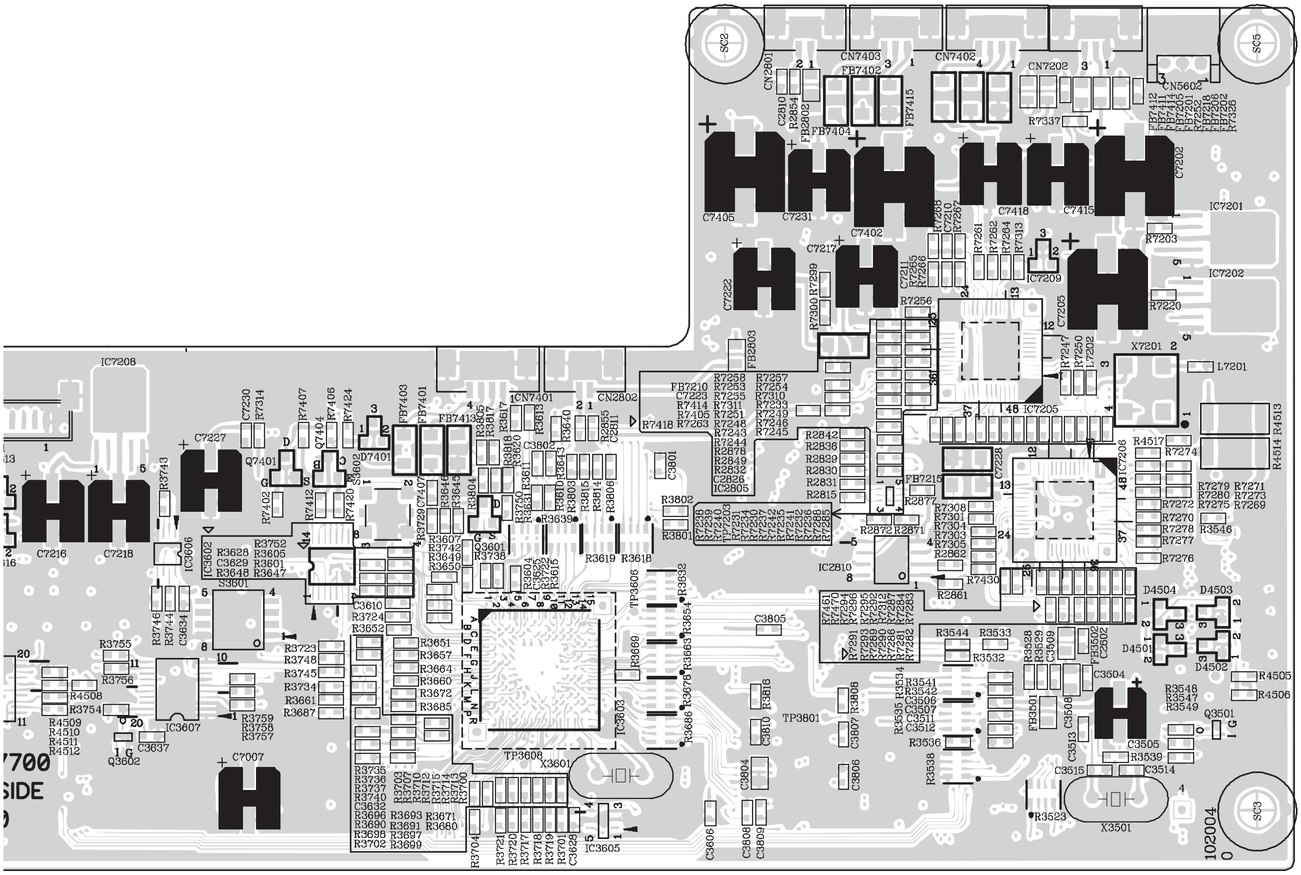
INDEX Unit (Side B)
INDEX-Einheit (Seite-B)

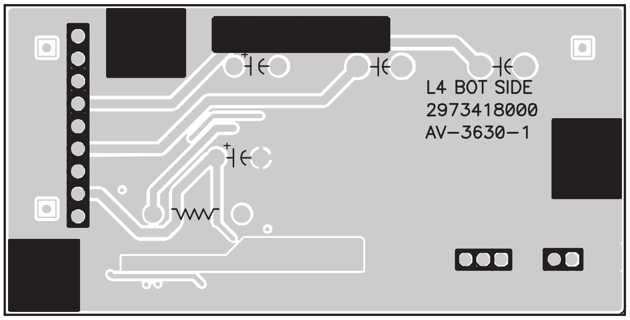

H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
CN7406
CN7005
CN7004
CN7003
IC1403
IC1404
SC6
SC1
SC7
SC4
Q1401
Q1402
Q1403
Q7415
Q7411
Q7408
Q7413
Q7414
IC1401
IC1402
IC1405
IC2801
IC2701
IC2707
IC2705
IC2706
IC2704
IC2802
IC2811
IC2812
IC7003
IC7004
IC7005
IC7006
IC7008
IC7001
IC7026
IC7203
IC7204
IC2807
IC2804
IC2708
IC4501
CN2702
CN7002
CN2700
CN2704
CN2703
CN7001
CN7404
CN7405
CN7203
CN7205
CN7204
CN2602
CN2601
C7012
C7003
C7216
R7021
R7013
S7001
FB7003
FB7208
FB7204
2973417700
L1 TOP SIDE
AV-3630
REV:00

## MAIN Unit (Side-A)
## HAUPT-Einheit (Seite-A)

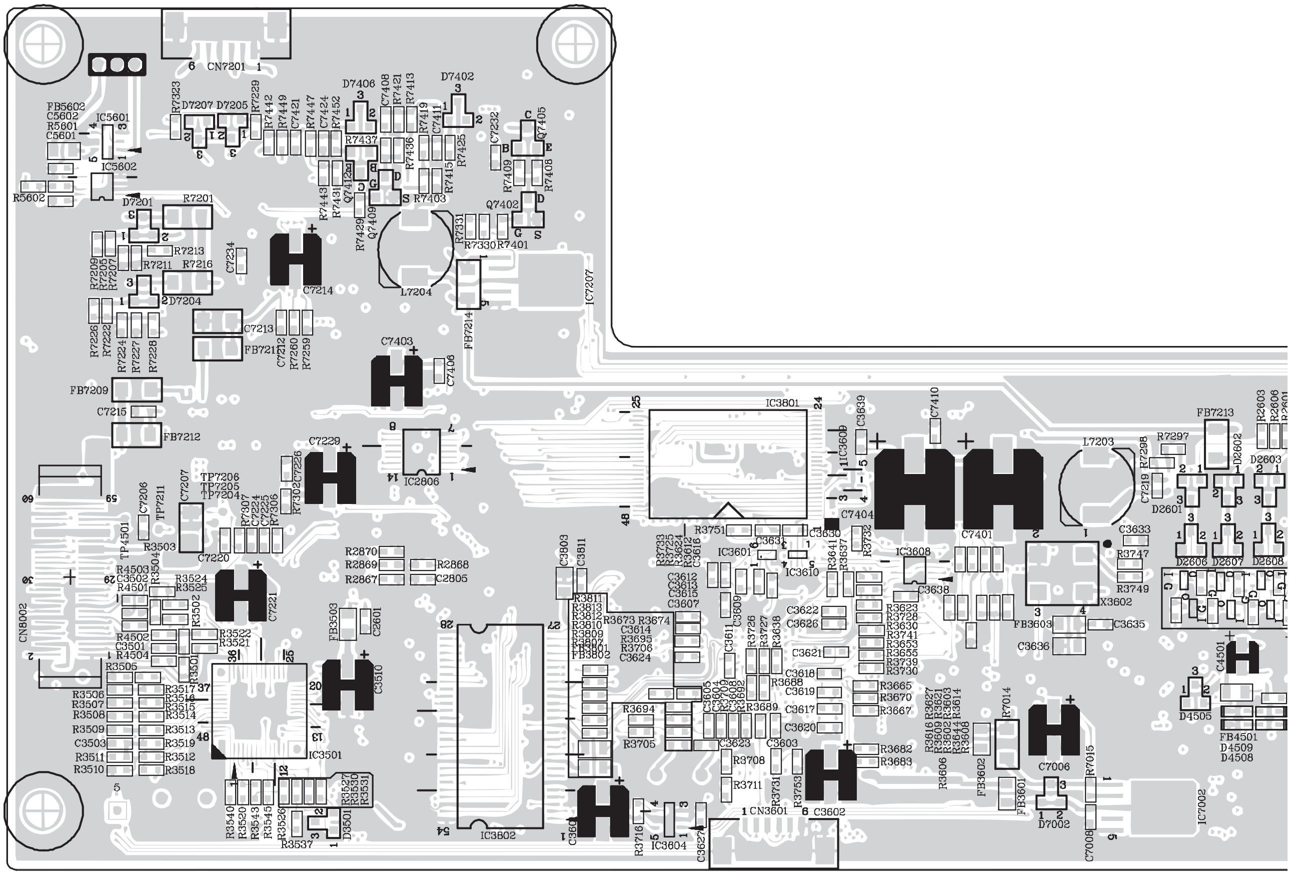

C1503
C1505
C1506
R1509 C1504
IC1501
C1501
FB1501
C1512
C1508
R1508
R1511
R1516 R1517
R1505 R1506
L1 TOP SIDE
2973418000
AV-3630-1
102004
Q1501
Q1502
Q1503
TH1501
R1519
R1518
R1501 R1514
R1502 R1515
CN1501
CN1502
C1507

# AUDIO Unit (Side-A)
# AUDIO-Einheit (Seite-A)

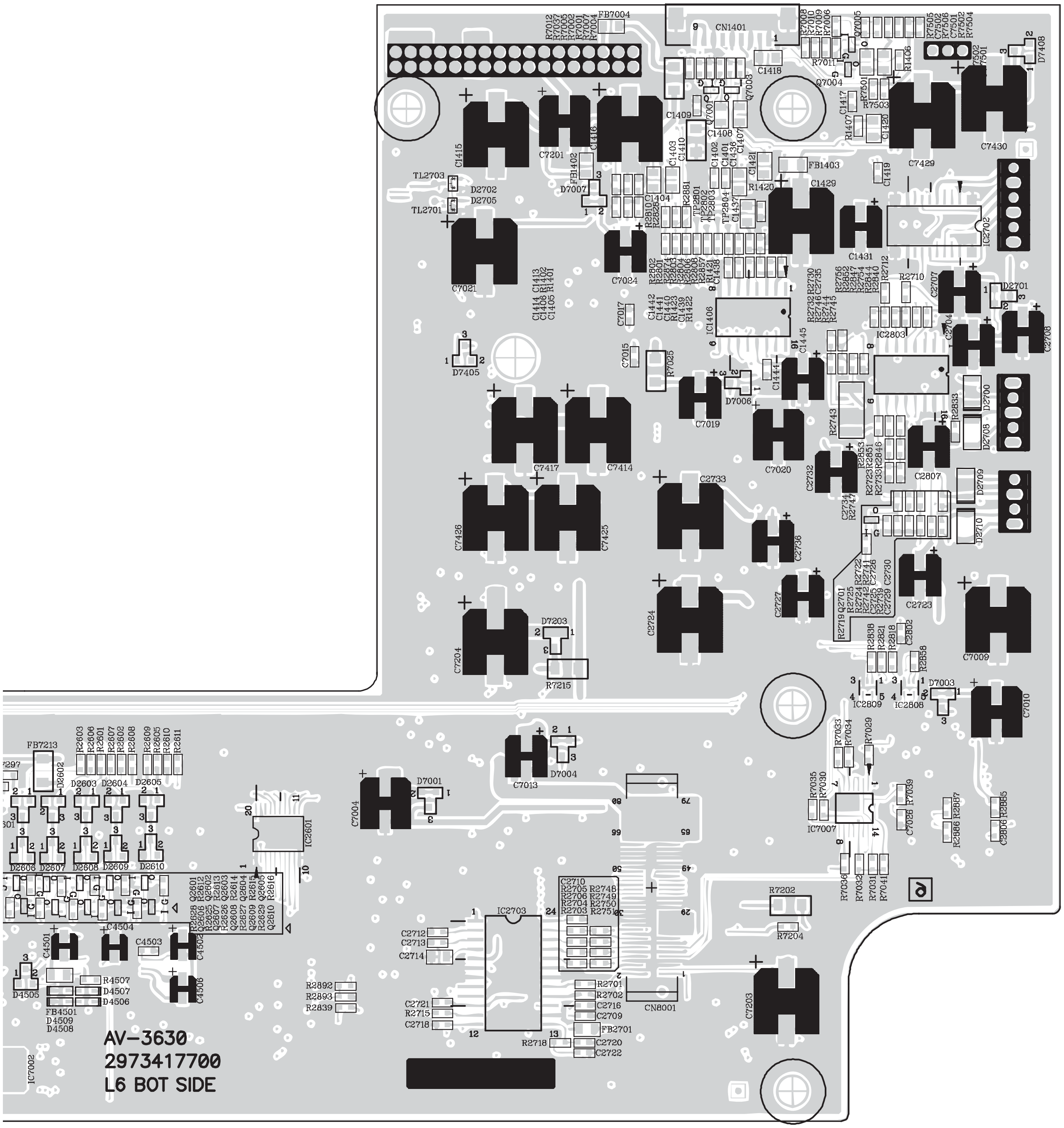

SC2
SC5
SC3
CN2801
CN7403
CN7402
CN7202
CN5602
FB7402
FB7404
FB7415
C7405
C7231
C7402
C7418
C7415
C7202
IC7201
IC7202
C7217
C7222
C7205
IC7209
X7201
L7201
IC7205
IC7206
IC7208
C7227
C7216
C7218
C7230
Q7401
D7401
CN7401
CN2802
FB7403
FB7401
IC3602
IC3606
S3601
IC3607
Q3602
C7007
C3605
IC3603
TP3606
TP3608
X3601
C3805
TP3801
IC2810
IC2805
D4504
D4503
D4501
D4502
Q3501
X3501
C3504
102004


L4 BOT SIDE
2973418000
AV-3630-1

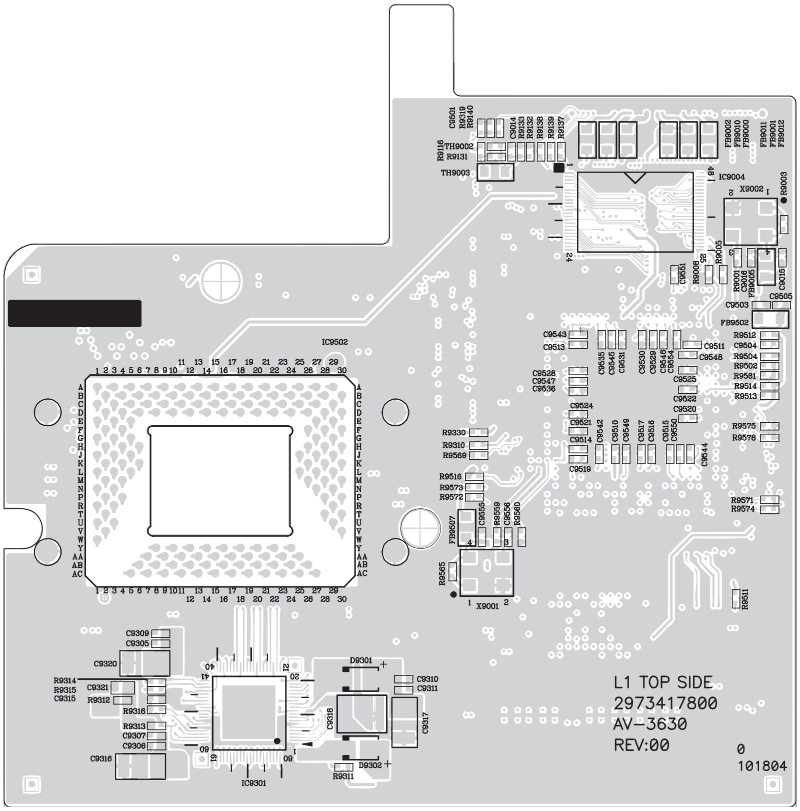
**AUDIO Unit (Side-B)
AUDIO-Einheit (Seite-B)**


CN7201
IC5601
IC5602
FB5602
C5602
R5601
C5601
R5602
D7201
D7204
D7205
D7207
D7406
D7402
Q7405
Q7402
Q7409
L7204
C7214
C7403
IC7207
FB7209
C7215
FB7212
C7229
IC2806
TP4501
TP7211
TP7206
TP7205
TP7204
C7220
C7221
CN8002
FB3503
C3510
IC3501
IC3802
IC3801
C3609
C7410
C7404
C3630
IC3601
IC3610
IC3608
C3638
L7203
FB7213
D2601
D2602
D2603
D2606
D2607
D2608
X3602
FB3603
C3635
C3636
C4501
D4505
FB4501
D4509
D4508
R7014
C7006
R7015
IC7002
D7002
FB3601
FB3602
CN3601
C3602
IC3604
R3716
R3708
R3711
R3694
R3705
R3682
R3683
R2870
R2869
R2867
R2868
C2805
C2601
C3633
R3747
R3749
R7297
R7298
C7219

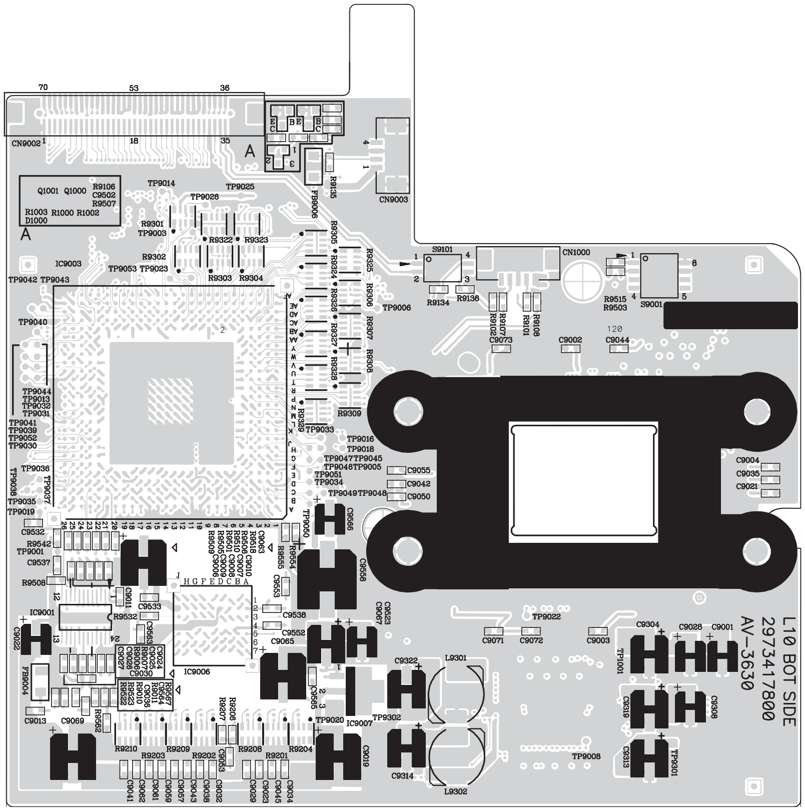
**MAIN Unit (Side-B)
HAUPT-Einheit (Seite-B)**


CN1401
IC1406
IC2803
IC2702
IC2703
IC2601
IC2809
IC2808
IC7007
IC7002
CN8001
AV-3630
2973417700
L6 BOT SIDE

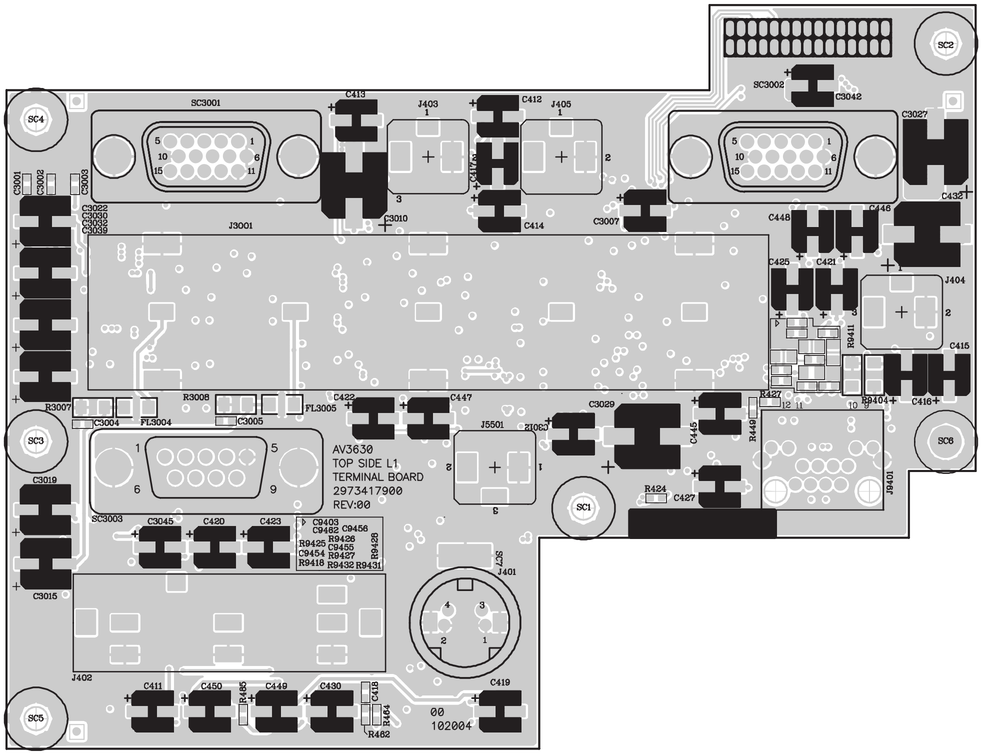
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|


IC9004
X9002
IC9502
X9001
IC9301
D9301
D9302
L1 TOP SIDE
2973417800
AV-3630
REV:00
0
101804

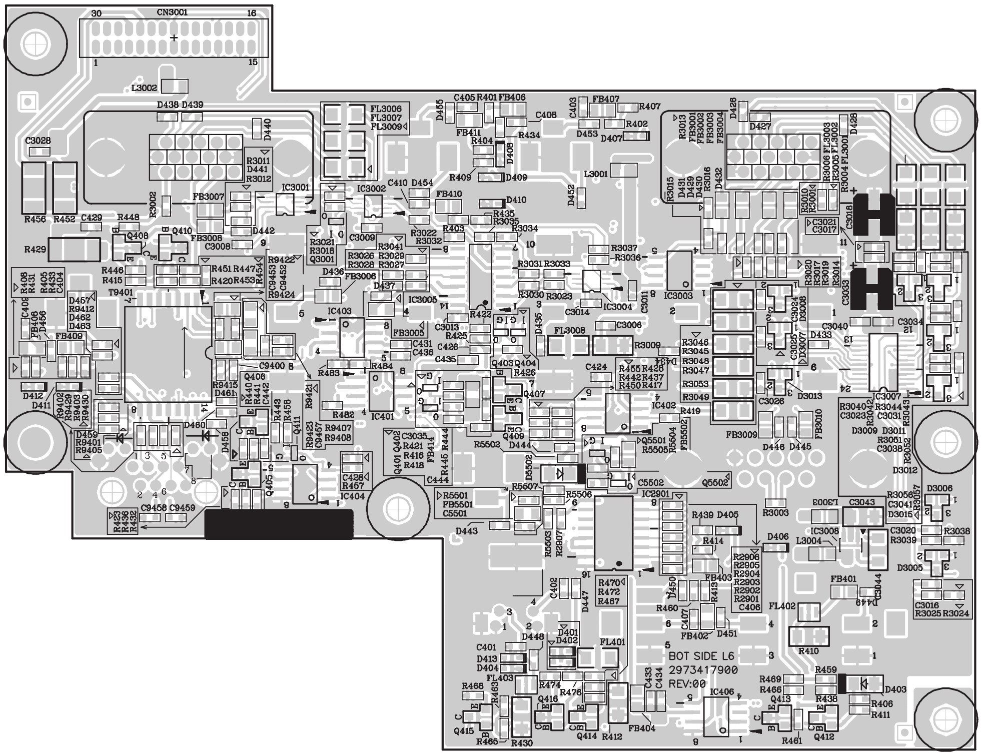
**FORMATTER Unit (Side-A)**
**FORMATTER-Einheit (Seite-A)**


CN9002
CN9003
CN1000
S9101
S9001
IC9003
IC9001
IC9006
IC9007
L9301
L9302
L10 BOT SIDE
2973417800
AV-3630

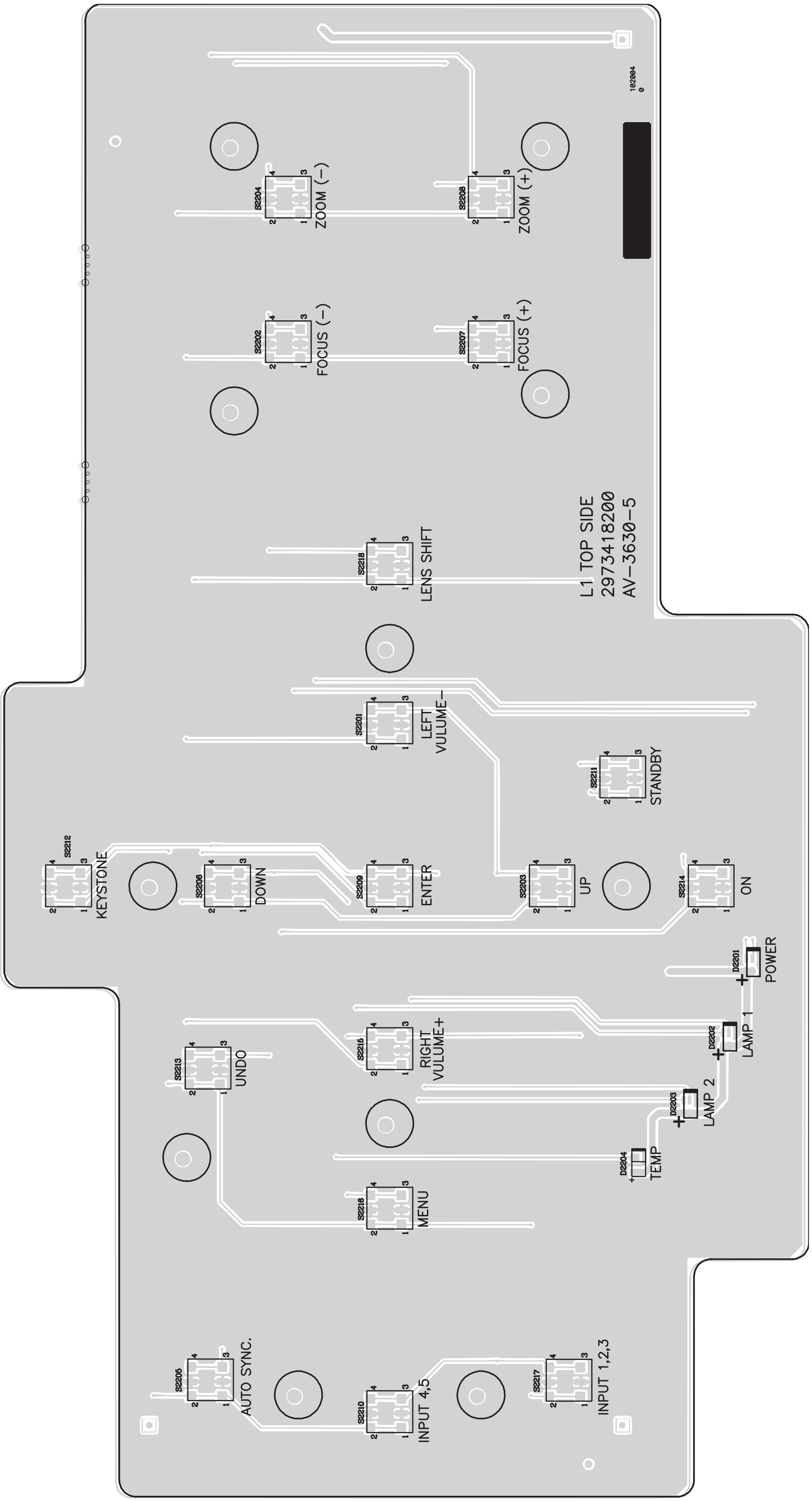
**FORMATTER Unit (Side-B)**
**FORMATTER-Einheit (Seite-B)**


SC4
SC2
SC3001
SC3002
J403
J405
J3001
J404
SC3
SC6
SC1
SC5
SC3003
J5501
J9401
J401
J402
SC7
AV3630
TOP SIDE L1
TERMINAL BOARD
2973417900
REV:00
00
102004

## TERMINAL Unit (Side-A)
## ANSCHLUSS-Einheit (Seite-A)

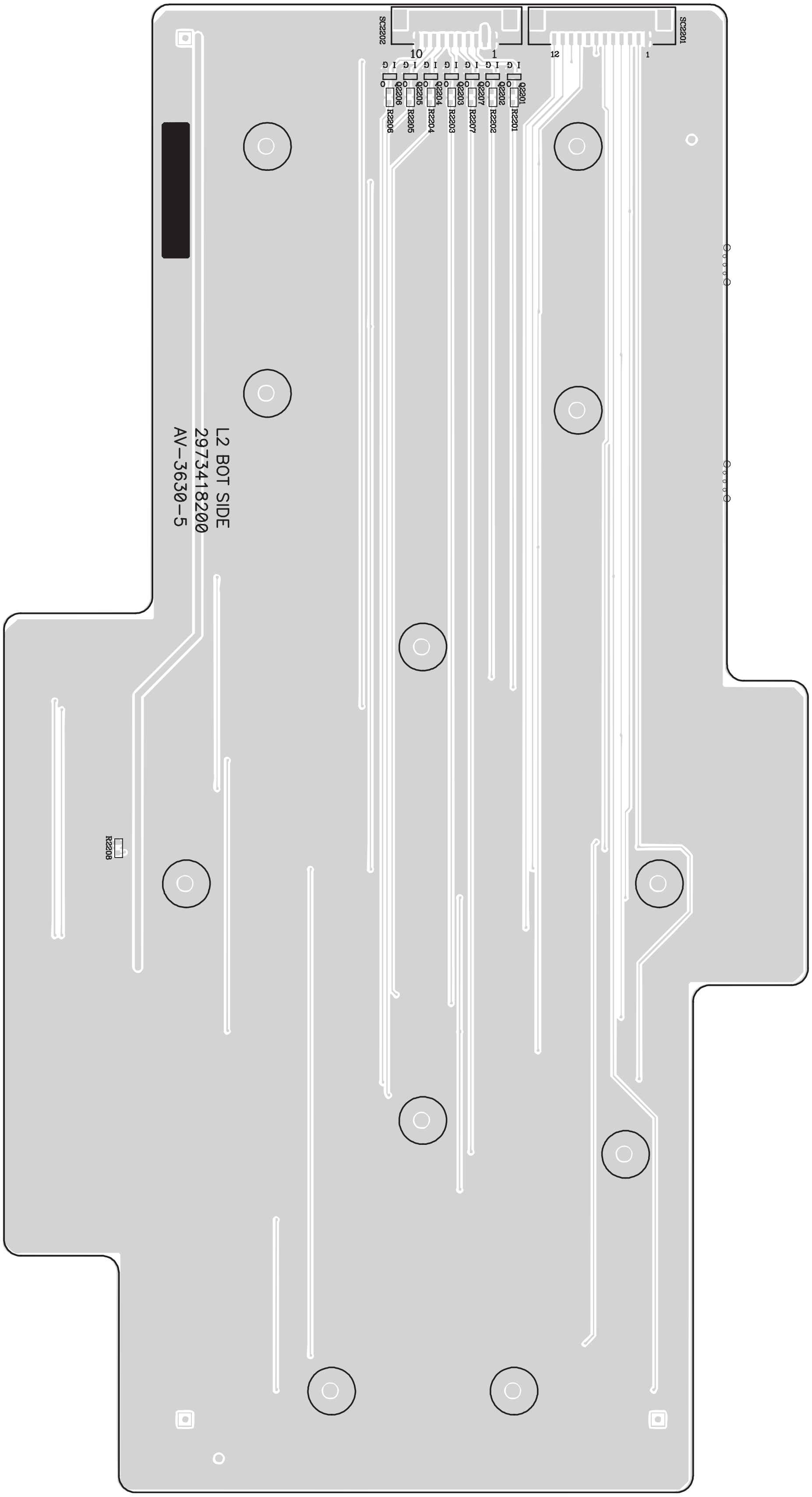

CN3001
30
16
1
15
IC3001
IC3002
IC403
IC401
IC404
IC3004
IC3003
IC402
IC2901
IC406
IC3006
IC3007
BOT SIDE L6
2973417900
REV:00
H
G
F
E
D
C
B
A
1
2
3
4
5
6

## TERMINAL Unit (Side-B)
## ANSCHLUSS-Einheit (Seite-B)

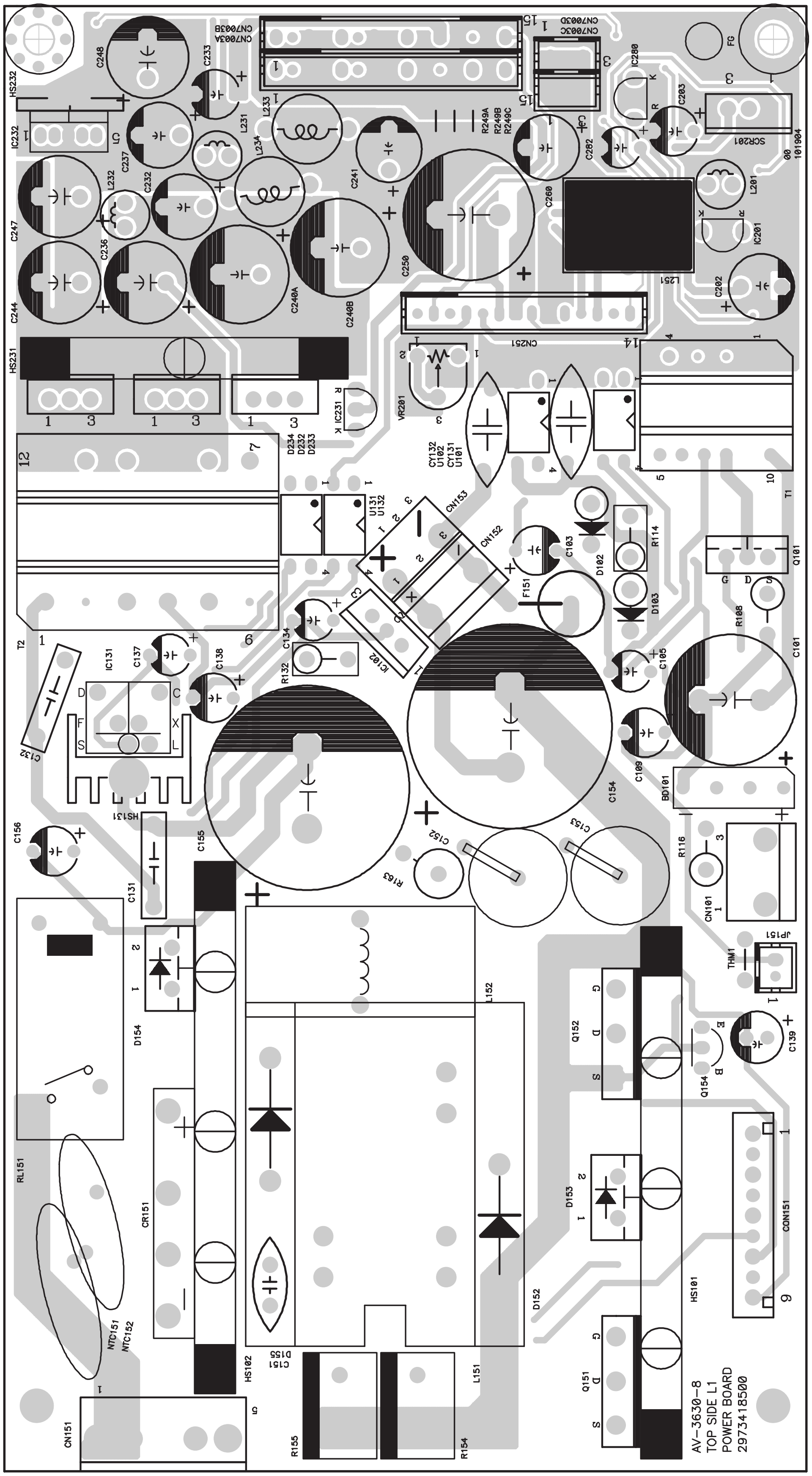

S2204
ZOOM (–)
S2208
ZOOM (+)
S2202
FOCUS (–)
S2207
FOCUS (+)
L1 TOP SIDE
2973418200
AV–3630–5
S2218
LENS SHIFT
S2201
LEFT
VULUME–
S2211
STANDBY
S2212
KEYSTONE
S2206
DOWN
S2209
ENTER
S2203
UP
S2214
ON
D2201
POWER
D2202
LAMP 1
S2215
RIGHT
VULUME+
S2213
UNDO
D2203
LAMP 2
D2204
TEMP
S2216
MENU
S2205
AUTO SYNC.
S2210
INPUT 4,5
S2217
INPUT 1,2,3

H
G
F
E
D
C
B
A
1
2
3
4
5
6

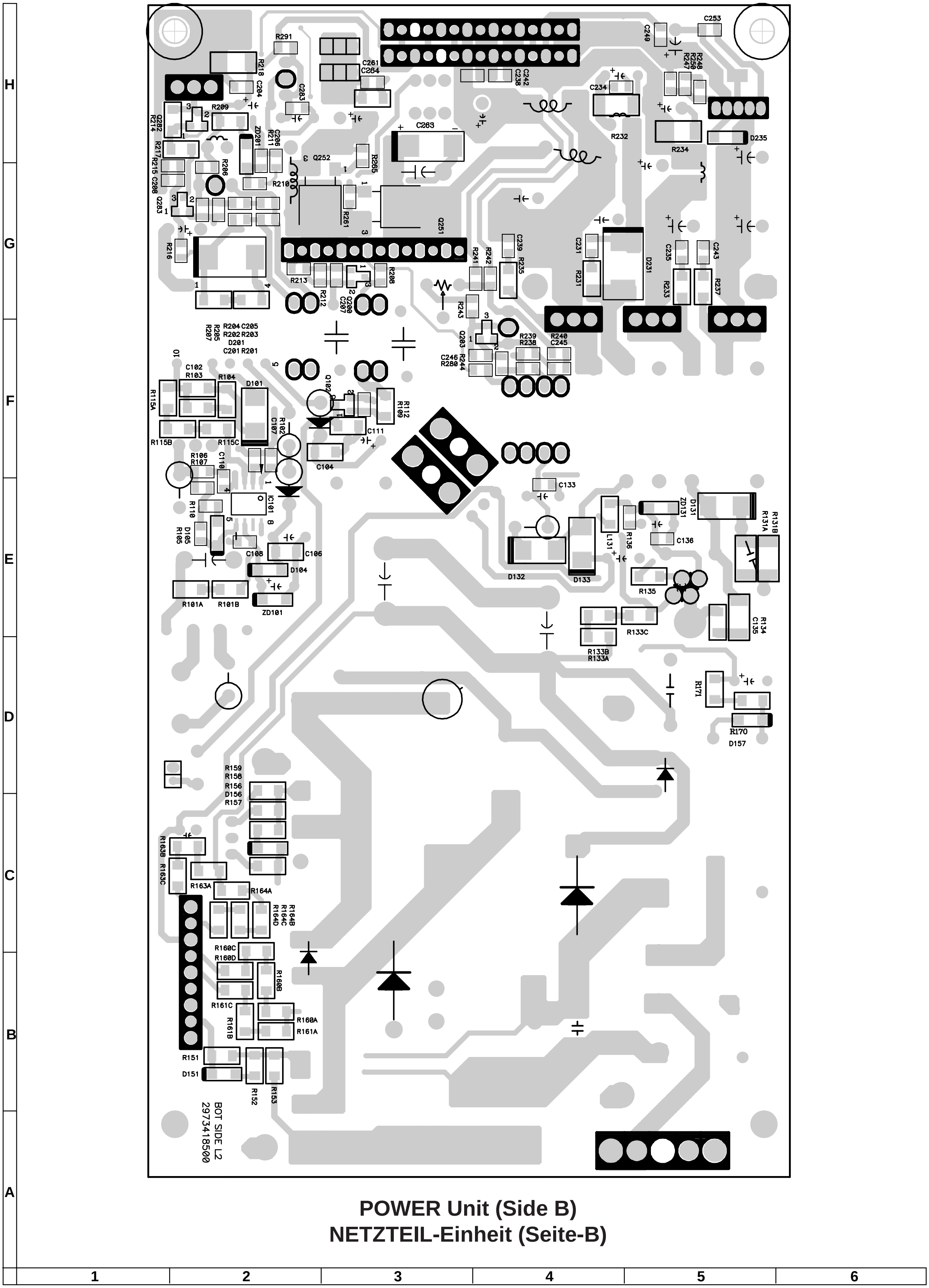
KEYPAD Unit (Side-A)
TASTEN-Einheit (Seite-A)


SC2202
SC2201
10
1
12
1
Q2206
Q2205
Q2204
Q2203
Q2207
Q2202
Q2201
R2206
R2205
R2204
R2203
R2207
R2202
R2201
L2 BOT SIDE
2973418200
AV-3630-5
R2208
H
G
F
E
D
C
B
A
1
2
3
4
5
6

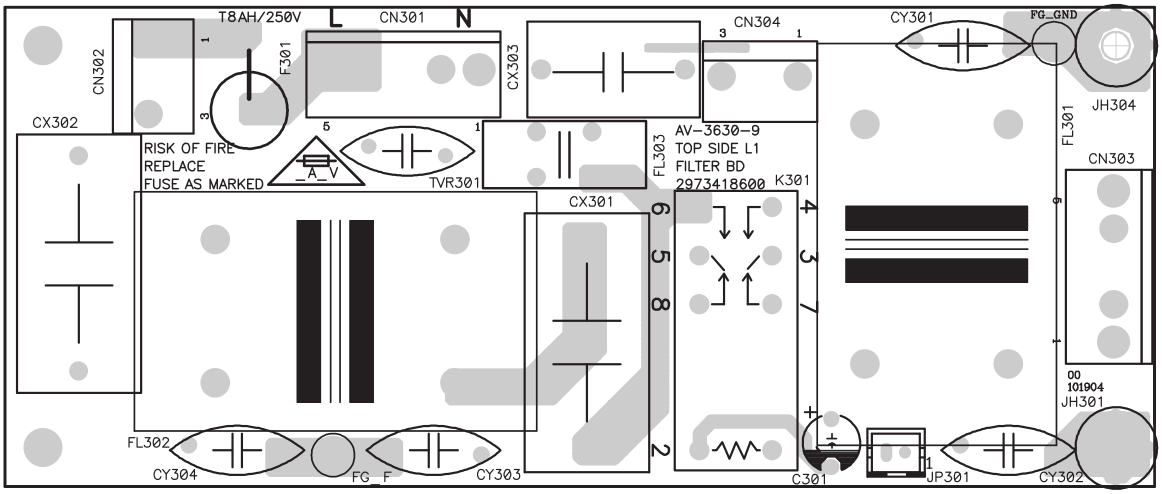
**KEYPAD Unit (Side-B)**
**TASTEN-Einheit (Seite-B)**


H
G
F
E
D
C
B
A
1
2
3
4
5
6
CN7003A
CN7003B
CN7003C
CN7003D
HS232
IC232
C248
C233
L233
L231
L234
C237
C232
L232
C247
C236
C244
C241
C240A
C240B
C250
C260
R249A
R249B
R249C
C282
IC280
C203
SCR201
L201
IC201
C202
L251
FG
101904
CN251
HS231
IC231
D234
D232
D233
VR201
CY132
U102
CY131
U101
T1
T2
U131
U132
CN153
CN152
C103
D102
R114
Q101
F151
D103
R108
C101
C134
C137
C138
IC131
R132
IC102
C105
C132
HS131
C109
BD101
C154
C153
C152
R163
C156
C155
C131
R116
CN101
JP151
THM1
L152
D154
Q152
Q154
C139
RL151
CR151
D153
CON151
HS101
D152
NTC151
NTC152
HS102
C151
D155
L151
Q151
CN151
R155
R154
AV-3630-8
TOP SIDE L1
POWER BOARD
2973418500

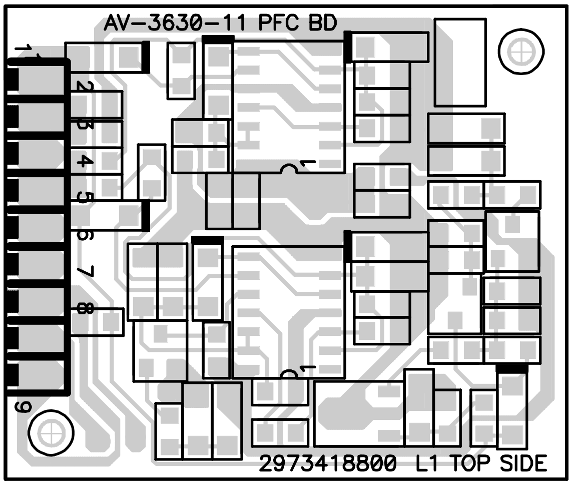
## POWER Unit (Side A)
## NETZTEIL-Einheit (Seite-A)


H
G
F
E
D
C
B
A
1
2
3
4
5
6
R291
C261
C264
C253
C249
R248
R250
R247
R218
C204
C283
C242
C238
C234
R209
Q282
R214
ZD201
C206
R211
C263
R232
D235
R234
R217
R215
C208
R206
Q252
R265
R210
Q283
R261
Q251
R216
R241
R242
C239
R235
C231
R231
D231
C235
C243
R233
R237
R213
R212
C207
Q200
R208
R243
R204
C205
R202
R203
R205
R207
D201
C201
R201
Q203
R239
R238
R240
C245
C246
R280
R244
C102
R103
R104
D101
Q102
R112
R109
R115A
C107
R102
C111
R115B
R115C
R106
R107
C110
C104
C133
IC101
R110
D105
R105
ZD131
D131
R131B
R131A
L131
R136
C136
C108
C106
D104
D132
D133
R135
R101A
R101B
ZD101
R134
C135
R133C
R133B
R133A
R171
R170
D157
R159
R158
R156
D156
R157
R163B
R163C
R163A
R164A
R164B
R164C
R164D
R160C
R160D
R160B
R161C
R161B
R160A
R161A
R151
D151
R152
R153
BOT SIDE L2
2973418500

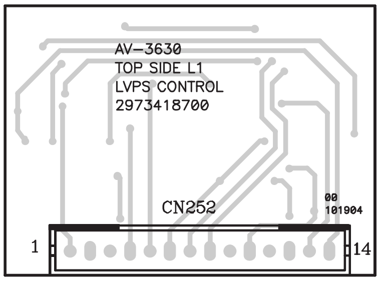
## POWER Unit (Side B)
## NETZTEIL-Einheit (Seite-B)


T8AH/250V
L
CN301
N
CX303
CN304
3
1
CY301
FG_GND
CN302
1
3
F301
JH304
FL301
CX302
5
1
RISK OF FIRE
REPLACE
FUSE AS MARKED
_A_V
TVR301
FL303
AV-3630-9
TOP SIDE L1
FILTER BD
2973418600
K301
CN303
CX301
6
5
8
2
4
3
7
6
1
00
101904
JH301
FL302
CY304
FG_F
CY303
C301
1
JP301
CY302

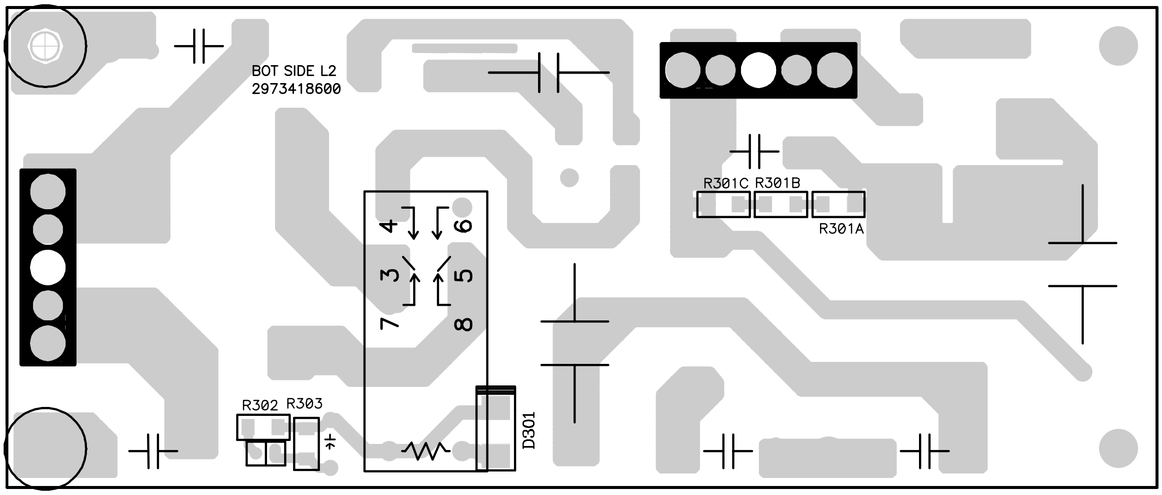
**FILTER Unit (Side-A)**
**FILTER-Einheit (Seite-A)**


AV-3630-11 PFC BD
1
2
3
4
5
6
7
8
9
1
1
2973418800 L1 TOP SIDE

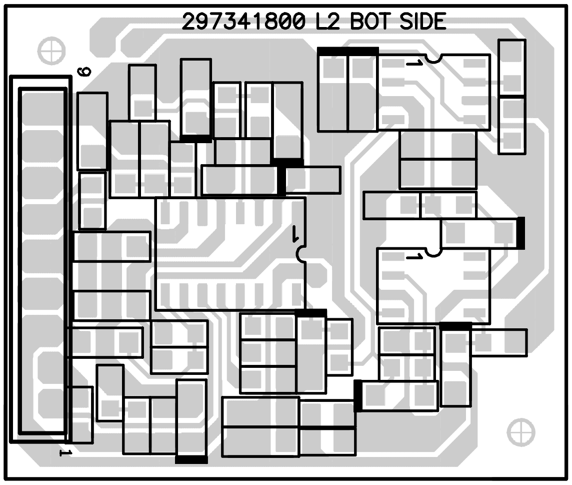
**P.F.C CONTROL Unit (Side-A)**
**P.F.C-kontroll-Einheit (Seite-A)**


AV-3630
TOP SIDE L1
LVPS CONTROL
2973418700
CN252
00
101904
1
14

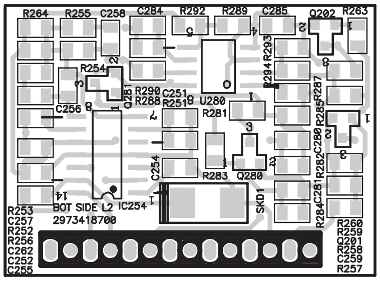
**LVPS CONTROL Unit (Side-A)**
**LVPS-kontroll-Einheit (Seite-A)**


BOT SIDE L2
2973418600
R301C R301B
R301A
4
6
3
5
7
8
R302 R303
D301

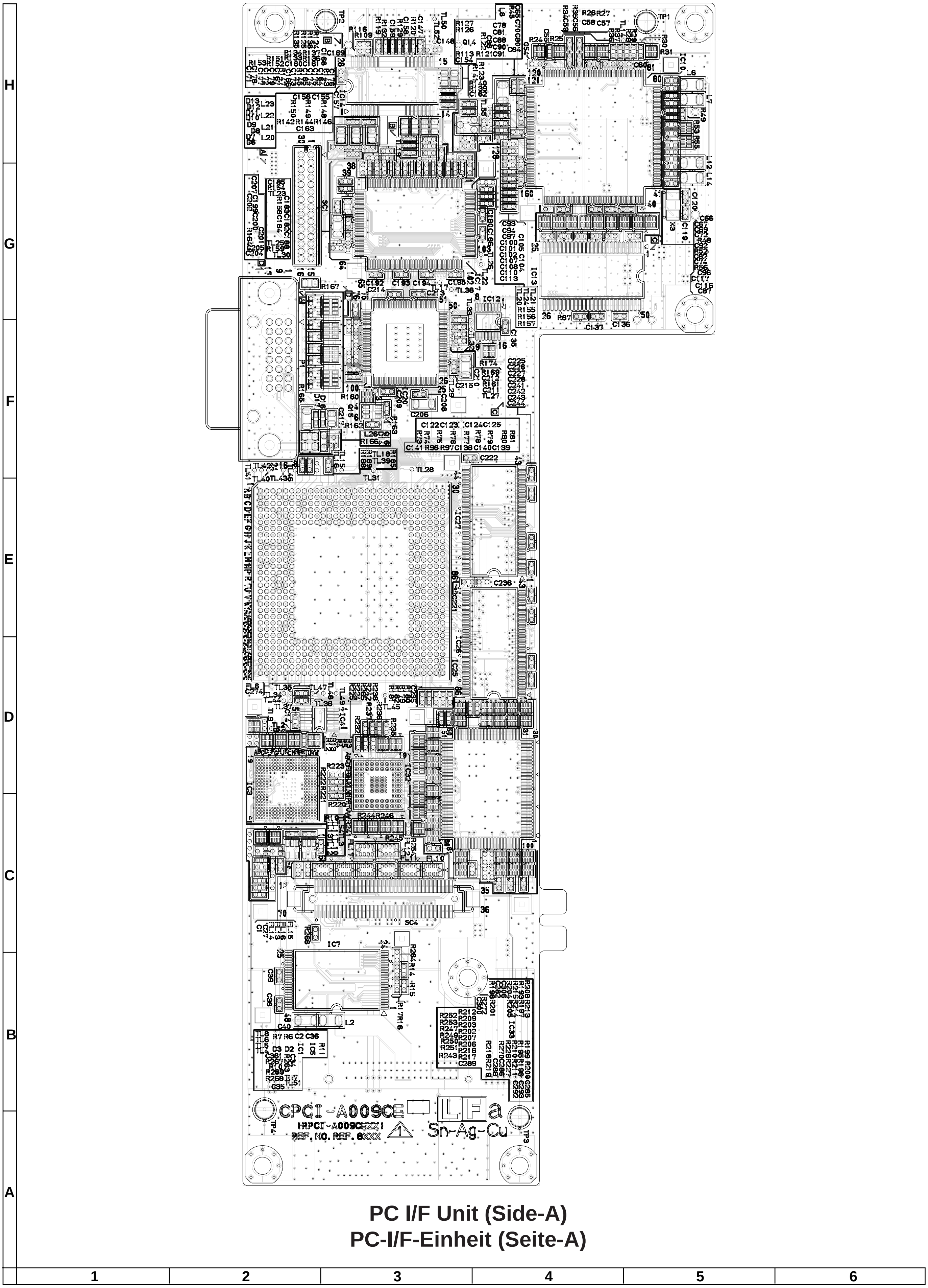
FILTER Unit (Side-B)
FILTER-Einheit (Seite-B)


297341800 L2 BOT SIDE
9
1
1
1
1

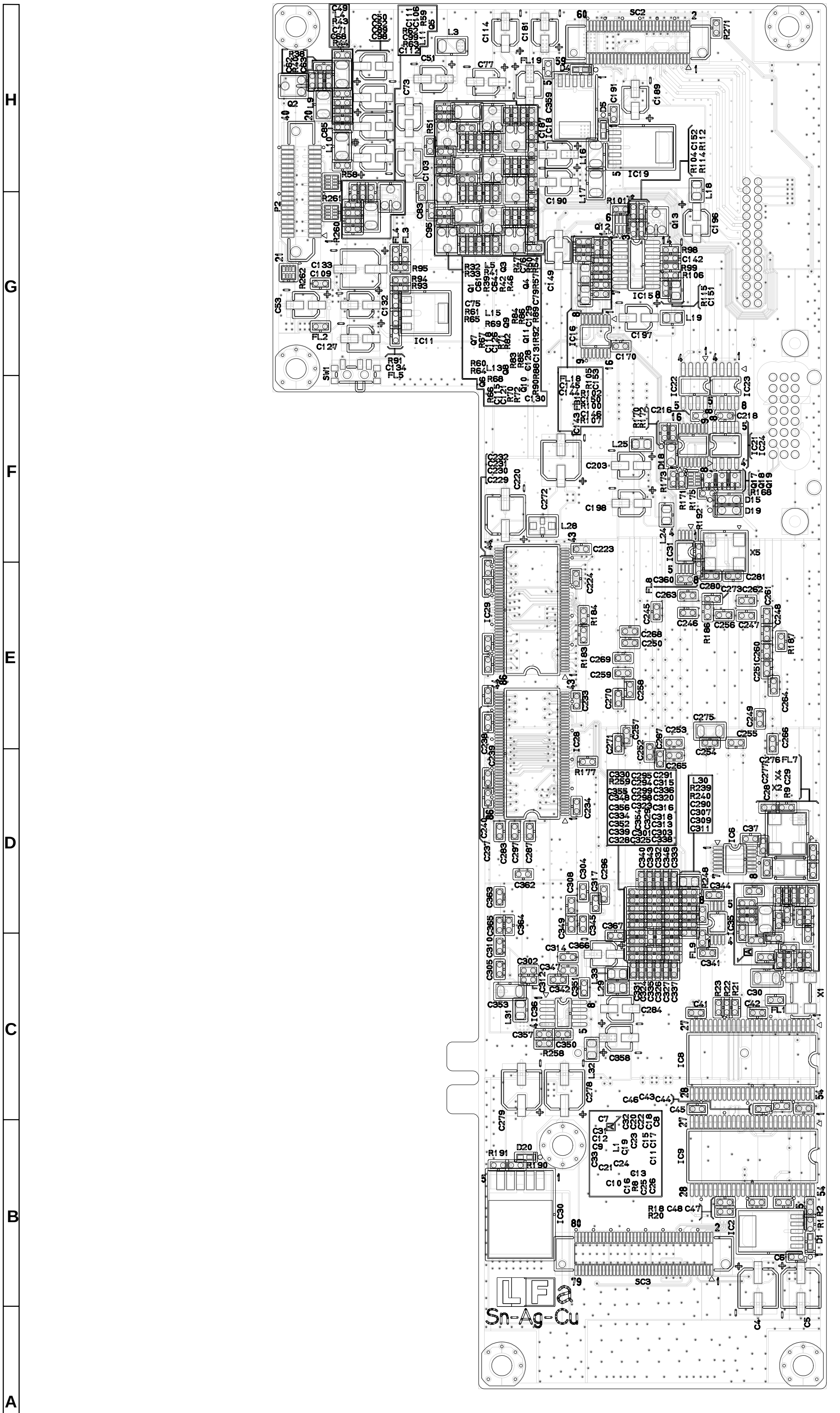
P.F.C CONTROL Unit (Side-B)
P.F.C-kontroll-Einheit (Seite-B)


R264
R255
C258
C284
R292
R289
C285
Q202
R263
R254
R293
R294
C256
Q281
R290
R288
C251
R251
U280
R281
R287
R285
C280
R282
C281
R284
C254
R283
Q280
SKD1
IC254
14
BOT SIDE L2
2973418700
R253
C257
R252
R256
C262
C252
C255
R260
R259
Q201
R258
C259
R257

LVPS CONTROL Unit (Side-B)
LVPS-kontroll-Einheit (Seite-B)


H
G
F
E
D
C
B
A
1
2
3
4
5
6
TP1
TP2
TP3
TP4
IC10
IC13
IC12
IC27
IC26
IC25
IC32
IC3
IC7
IC33
SC1
SC4
X3
L6
L7
CPCI-A009CE
(RPCI-A009CEZZ)
REF.NO.REF.8XXX
LFa
Sn-Ag-Cu

PC I/F Unit (Side-A)
PC-I/F-Einheit (Seite-A)


H
G
F
E
D
C
B
A
SC2
SC3
IC19
IC15
IC16
IC11
IC22
IC23
IC21
IC24
IC31
X5
IC29
IC28
IC6
IC35
IC36
IC8
IC9
IC30
IC2
X1
P2
SW1
LFa
Sn-Ag-Cu
1
2
3
4
5
6

## PC I/F Unit (Side-B)
## PC-I/F-Einheit (Seite-B)

# PARTS LIST

## PARTS REPLACEMENT

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

## HOW TO ORDER REPLACEMENT PARTS

To have your order filled promptly and correctly, please furnish the following informations.

| | |
|---|---|
| 1. MODEL NUMBER | 2. REF. NO. |
| 3. PART NO. | 4. DESCRIPTION |
| 5. CODE | 6. QUANTITY |

in **USA**: Contact your nearest SHARP Parts Distributor.
For location of SHARP Parts Distributor,
Please call Toll-Free; 1-800-BE-SHARP

in **CANADA**: Contact SHARP Electronics of Canada Limited
Phone (416) 890-2100.

★ MARK: SPARE PARTS-DELIVERY SECTION

## PRINTED WIRING BOARD ASSEMBLIES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| | 9NK5600204252 | J | MAIN Unit | CK |
| | 9NK5600204253 | J | FORMATTER Unit | CM |
| | 9NK5600204232 | J | POWER Unit | BX |
| | 9NK5600204233 | - | FILTER Unit | – |
| | 9NK5600204261 | J | PC I/F Unit | |
| | 9NK5600204234 | J | LVPS CONTROL Unit | AW |
| | 9NK5600204245 | J | P.F.C CONTROL Unit | BB |
| | 9NK5600204255 | - | AUDIO Unit | – |
| | 9NK5600204254 | - | TERMINAL Unit | – |
| | 9NK5600204256 | - | INDEX Unit | – |
| | 9NK5600204257 | - | IR (Front) Unit | – |
| | 9NK5600204260 | - | IR (Rear) Unit | – |
| | 9NK5600204258 | - | KEYPAD Unit | – |
| | 9NK5600204263 | J | LAMP1COVER Unit | AW |
| | 9NK5600204264 | J | LAMP2 COVER Unit | AW |

# ERSATZTEILLISTE

## AUSTAUSCH VON TEILEN

Ersatzteile, die besondere Sicherheitseigenschften haben, sind in dieser Anleitung markiert. Elektrische Komponenten mit solchen Eigenshaften sind in den Ersatzteil durch "⚠" gekenn-zeichnet. Der Gebrauch von Ersatzteilen, die nicht deselben Sicherheitseigenschaften haben wie die vom Hersteller empfohlenen ud in der Bedienungsanleitung angegebenen, können zur Ursache von Blitzeinschlägen, Bränden und anderen Gefahren werden.

## WIE MAN ERSATSTEILE BESTELLT

Damit Ihre Bestellung promt und korrekt ausgeführt wird, geben Sie bitte folgende Informationen.

| | |
|---|---|
| 1. MODELL NR. | 2. REF. NR. |
| 3. ERSATZTEIL NR. | 4. BESCHREIBUNG |
| 5. KODE | 6. QUANTITÄT |

★ MARKIERUNG : ERSATZTEILE-LIEFERUNG

## 9NK5600204252
## MAIN UNIT

### INTEGRATED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| IC1401 | 9NK2530239006 | J | 4-IN Stereo Audio Processor, TDA7440D | AP |
| IC1402 | 9NK2500047320 | J | Regurator, PQ20WZ1UJ00H | AK |
| IC1403 | 9NK2530224474 | J | Video SW With 6db AMP, NJM2245M | AM |
| IC1404 | 9NK2530224474 | J | Video SW With 6db AMP, NJM2245M | AM |
| IC1405 | 9NK2530247007 | J | Digital Echo Vioce Process, M65850FP | AQ |
| IC1406 | 9NK2530247007 | J | Digital Echo Vioce Process, M65850FP | AQ |
| IC2601 | 9NK2600062507 | J | Cmos Octal Buffer Non-Inv, 74AHC541PW | AF |
| IC2701 | 9NK2500052420 | J | Regurator, PQ05DZ1UJ00H | AK |
| IC2702 | 9NK2510090120 | J | Motor Driver, LB1831M | AL |
| IC2703 | 9NK2510311381 | J | 3Phase DC Motor CTL/ Driver, A8904SLB | |
| IC2704 | 9NK2500041320 | J | Regurator, PQ12DZ1UJ00H | AK |
| IC2705 | 9NK2510139329 | J | Reversible Motor Driver, BA6417F | AK |
| IC2706 | 9NK2500041320 | J | Regurator, PQ12DZ1UJ00H | AK |
| IC2707 | 9NK2510139329 | J | Reversible Motor Driver, BA6417F | |
| IC2708 | 9NK2600091808 | J | Inverter Gate, SN74AHCT1G14DBVR | AC |
| IC2801 | 9NK2540154107 | J | 8Bit 12Ch D/A Converter, M62392FP | AQ |
| IC2802 | 9NK2540086207 | J | 8Bit I/O Expander, M62320FP | AL |
| IC2803 | 9NK2540086207 | J | 8Bit I/O Expander, M62320FP | AL |
| IC2804 | 9NK2540345516 | J | 8Bit I2C+Smbus I/O Port, PCA9557PW/G | AQ |
| IC2805 | 9NKP590600206 | J | FET, HN1K03FU(F) | AE |
| IC2807 | 9NK2610188542 | J | EEPROM 16K, AT24C16AN | AG |
| IC2808 | 9NK2600102134 | J | 2-Input And Gate, TC7SET08FU(F) | AE |
| IC2809 | 9NK2600102134 | J | 2-Input And Gate, TC7SET08FU(F) | AE |
| IC2810 | 9NK2610437413 | J | EEPROM 32K*8, HN58X24256FPI | AT |

## 9NK5600204252
## MAIN UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| IC2811 | 9NK2600159208 | J | 2-In Or Gate, SN74LVC1G32DCKR | AD |
| IC2812 | 9NK2540086207 | J | 8Bit I/O Expander, M62320FP | AL |
| IC3501 | 9NK2620271059 | J | 10/100 FETH PHY, RTL8201CP | AQ |
| IC3601 | 9NK2600181108 | J | Single Bus Buf Gate, SN74LVC1G125DCKR | AE |
| IC3602 | 9NK2600092007 | J | 2-Input And Gate, 74HCT08PWT | AD |
| IC3603 | 9NK2550018113 | J | 32Bit Risc Ucomputer, HD6417618BGN100V | BK |
| IC3604 | 9NK251038410H | J | System Reset, PST9229NR | AG |
| IC3605 | 9NK251038420H | J | System Reset, PST9012NR | AG |
| IC3606 | 9NK2600136608 | J | D-Type Flip-Flop Clear Preset, SN74LVC2G74DCTR | AG |
| IC3607 | 9NK2600062507 | J | Cmos Octal Buffer Non-Inv, 74AHC541PW | AF |
| IC3608 | 9NK2600134434 | J | Dual Analog Switch, SN74LVC2G66DCTR | AE |
| IC3609 | 9NK2600102134 | J | 2-Input And Gate, TC7SET08FU(F) | AE |
| IC3610 | 9NKP590600206 | J | FET, HN1K03FU(F) | AE |
| IC3801 | 9NK2610454960 | J | Flash Memory 16M, MX29LV160BBTC | |
| IC3802 | 9NK2610369714 | J | SDRAM 64M, K4S641632H- TC75000 | BB |
| IC4501 | 9NK2540428051 | J | Rs232 Line Dri/Rec, UPD4721GS | AT |
| IC5601 | 9NK2600102034 | J | 2-Input And Gate, TC7S08F(F) | AC |
| IC5602 | 9NK2600183108 | J | Spdt SW 2:1 Analog Mux/ Demux, SN74LVC2G53DCTR | AG |
| IC7001 | 9NK2500047120 | J | Regurator, PQ3DZ13U | AK |
| IC7002 | 9NK2500121220 | J | Regurator, PQ015EZ01ZPH | AL |
| IC7003 | 9NK2500052420 | J | Regurator, PQ05DZ1UJ00H | AK |
| IC7004 | 9NK2500041320 | J | Regurator, PQ12DZ1UJ00H | AK |
| IC7005 | 9NK2500052420 | J | Regurator, PQ05DZ1UJ00H | AK |
| IC7006 | 9NK2500276120 | J | Regurator, PQ1R33 | AH |
| IC7007 | 9NK2600092007 | J | 2-Input And Gate, 74HCT08PWT | AD |
| IC7008 | 9NK2500041320 | J | Regurator, PQ12DZ1UJ00H | AK |
| IC7026 | 9NK2600147208 | J | Dual 2-In Or Gate, SN74LVC2G32DCTR | AF |
| IC7201 | 9NK2500047320 | J | Regurator, PQ20WZ1UJ00H | AK |
| IC7202 | 9NK2500047320 | J | Regurator, PQ20WZ1UJ00H | AK |
| IC7203 | 9NK2500047320 | J | Regurator, PQ20WZ1UJ00H | AK |
| IC7204 | 9NK2500047320 | J | Regurator, PQ20WZ1UJ00H | AK |
| IC7205 | 9NK2540230032 | J | H/W Monitor, W83782D | AS |
| IC7206 | 9NK2540230032 | J | H/W Monitor, W83782D | AS |
| IC7207 | 9NK2500047320 | J | Regurator, PQ20WZ1UJ00H | AK |
| IC7208 | 9NK2500047320 | J | Regurator, PQ20WZ1UJ00H | AK |
| IC7209 | 9NK2510126133 | J | EconoReset, DS1815R | AL |

### TRANSISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| Q1401 | 9NKM522000405 | J | MMBT3904L | AB |
| Q1402 | 9NKM522000405 | J | MMBT3904L | AB |
| Q1403 | 9NKM532500236 | J | DTC144EUA | AB |
| Q1404 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2601 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2602 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2603 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2604 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2605 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2606 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2607 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2608 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2609 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2610 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2701 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2702 | 9NKM532500236 | J | DTC144EUA | AB |
| Q3501 | 9NKM532500036 | J | DTC114EUA | AB |
| Q3602 | 9NKM532500036 | J | DTC114EUA | AB |
| Q7001 | 9NKM532500036 | J | DTC114EUA | AB |
| Q7003 | 9NKM532500036 | J | DTC114EUA | AB |
| Q7004 | 9NKM532500036 | J | DTC114EUA | AB |
| Q7005 | 9NKM532500036 | J | DTC114EUA | AB |
| Q7401 | 9NKP522500007 | J | FET, 2N7002 | |
| Q7402 | 9NKP522500007 | J | FET, 2N7002 | |
| Q7404 | 9NKN522000417 | J | MMBT4403 | AB |
| Q7405 | 9NKN522000417 | J | MMBT4403 | AB |
| Q7408 | 9NKP522500007 | J | FET, 2N7002 | |
| Q7409 | 9NKP522500007 | J | FET, 2N7002 | |
| Q7411 | 9NKN522000417 | J | MMBT4403 | AB |
| Q7412 | 9NKN522000417 | J | MMBT4403 | AB |
| Q7413 | 9NKP522500007 | J | FET, 2N7002 | |
| Q7414 | 9NKN522000417 | J | MMBT4403 | AB |
| Q7415 | 9NKP522500007 | J | FET, 2N7002 | |
| Q7416 | 9NKN522000417 | J | MMBT4403 | AB |

### DIODES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D2601 | 9NKI520080236 | J | RB425D | AC |
| D2602 | 9NKI520080236 | J | RB425D | AC |
| D2603 | 9NKI520080236 | J | RB425D | AC |
| D2604 | 9NKI520080236 | J | RB425D | AC |
| D2605 | 9NKI520080236 | J | RB425D | AC |
| D2606 | 9NKK520800607 | J | 1PS226 | AB |
| D2607 | 9NKK520800607 | J | 1PS226 | AB |
| D2608 | 9NKK520800607 | J | 1PS226 | AB |
| D2609 | 9NKK520800607 | J | 1PS226 | AB |
| D2610 | 9NKK520800607 | J | 1PS226 | AB |
| D2611 | 9NKI520080236 | J | RB425D | AC |
| D2612 | 9NKI520080236 | J | RB425D | AC |
| D2613 | 9NKI520080236 | J | RB425D | AC |
| D2614 | 9NK0920990416 | J | EV18N | AC |
| D2615 | 9NKI520080236 | J | RB425D | AC |
| D2616 | 9NKK520800607 | J | 1PS226 | AB |
| D2617 | 9NK0920990416 | J | EV18N | AC |
| D2618 | 9NKK520800607 | J | 1PS226 | AB |
| D2619 | 9NKK520800607 | J | 1PS226 | AB |
| D2620 | 9NKK520800607 | J | 1PS226 | AB |
| D2621 | 9NK0920990416 | J | EV18N | AC |
| D2622 | 9NK0920990416 | J | EV18N | AC |
| D2623 | 9NK0920990416 | J | EV18N | AC |
| D2624 | 9NK0920990416 | J | EV18N | AC |
| D2625 | 9NK0920990416 | J | EV18N | AC |
| D2626 | 9NK0920990416 | J | EV18N | AC |
| D2627 | 9NK0920990416 | J | EV18N | AC |
| D2628 | 9NK0920990416 | J | EV18N | AC |
| D2629 | 9NK0920990416 | J | EV18N | AC |
| D2630 | 9NK0920990416 | J | EV18N | AC |
| D2631 | 9NK0920990416 | J | EV18N | AC |
| D2632 | 9NK0920990416 | J | EV18N | AC |
| D2633 | 9NK0920990416 | J | EV18N | AC |
| D2634 | 9NK0920990416 | J | EV18N | AC |
| D2635 | 9NK0920990416 | J | EV18N | AC |
| D2700 | 9NKH800860007 | J | BYD37J | AD |
| D2701 | 9NKK520800036 | J | DAN202K | AB |
| D2702 | 9NKI530060007 | J | BAT54SW | AB |
| D2703 | 9NKI530060007 | J | BAT54SW | AB |
| D2704 | 9NKK520800036 | J | DAN202K | AB |
| D2705 | 9NKI530060007 | J | BAT54SW | AB |
| D2706 | 9NKI530060007 | J | BAT54SW | AB |
| D2707 | 9NKK520800036 | J | DAN202K | AB |
| D2708 | 9NKH800860007 | J | BYD37J | AD |
| D2709 | 9NKH800860007 | J | BYD37J | AD |
| D2710 | 9NKH800860007 | J | BYD37J | AD |
| D3501 | 9NKI520080236 | J | RB425D | AC |
| D4501 | 9NKK520800607 | J | 1PS226 | AB |
| D4502 | 9NKK520800607 | J | 1PS226 | AB |
| D4503 | 9NKK520800607 | J | 1PS226 | AB |
| D4504 | 9NKK520800607 | J | 1PS226 | AB |
| D4505 | 9NKK520800036 | J | DAN202K | AB |
| D4506 | 9NKJ841820007 | J | Zener Diode 12V, PDZ12B | AB |
| D4507 | 9NKJ841820007 | J | Zener Diode 12V, PDZ12B | AB |
| D4508 | 9NKJ841820007 | J | Zener Diode 12V, PDZ12B | AB |
| D4509 | 9NKJ841820007 | J | Zener Diode 12V, PDZ12B | AB |
| D7001 | 9NKK520800036 | J | DAN202K | AB |

## 9NK5600204252

## MAIN UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D7002 | 9NKK520800036 | J | DAN202K | AB |
| D7003 | 9NKK520800036 | J | DAN202K | AB |
| D7004 | 9NKK520800036 | J | DAN202K | AB |
| D7005 | 9NKK520800036 | J | DAN202K | AB |
| D7006 | 9NKK520800036 | J | DAN202K | AB |
| D7007 | 9NKK520800036 | J | DAN202K | AB |
| D7201 | 9NKK520800036 | J | DAN202K | AB |
| D7202 | 9NKK520800036 | J | DAN202K | AB |
| D7203 | 9NKK520800036 | J | DAN202K | AB |
| D7204 | 9NKK520800036 | J | DAN202K | AB |
| D7205 | 9NKK520800036 | J | DAN202K | AB |
| D7206 | 9NKK520800036 | J | DAN202K | AB |
| D7208 | 9NKJ841820007 | J | Zener Diode 12V, PDZ12B | AB |
| D7401 | 9NKK520750017 | J | MMBD4148 | AB |
| D7402 | 9NKK520750017 | J | MMBD4148 | AB |
| D7405 | 9NKK520750017 | J | MMBD4148 | AB |
| D7406 | 9NKK520750017 | J | MMBD4148 | AB |
| D7407 | 9NKK520750017 | J | MMBD4148 | AB |
| D7408 | 9NKK520750017 | J | MMBD4148 | AB |

### PACKAGED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| X3501 | 9NK0730281208 | J | Crystal 25MHz | AE |
| X3601 | 9NK0730160612 | J | Crystal 24.576MHz | AE |
| X3602 | 9NK0732140408 | J | Oscillator 3.6864MHz | AN |
| X7201 | 9NK0732260208 | J | Oscillator 14.318MHz | AL |

### COILS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| L7201 | 9NK2921091427 | J | Ferrite Bead | AB |
| L7202 | 9NK2921091427 | J | Ferrite Bead | AB |
| L7203 | 9NK2816725880 | J | Inductor, 22µH (M) | AF |
| L7204 | 9NK2816725880 | J | Inductor, 22µH (M) | AF |

### CAPACITORS

| Ref. No. | Part No. | ★ | Description | | | Code |
|---|---|---|---|---|---|---|
| C1401 | 9NK1547664000 | J | 0.47 | 16V | Ceramic | AB |
| C1402 | 9NK1547664000 | J | 0.47 | 16V | Ceramic | AB |
| C1403 | 9NK1547687100 | J | 2.2 | 16V | Ceramic | AB |
| C1404 | 9NK1547687100 | J | 2.2 | 16V | Ceramic | AB |
| C1405 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1406 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1407 | 9NK1547667100 | J | 1 | 16V | Ceramic | AB |
| C1408 | 9NK1547667100 | J | 1 | 16V | Ceramic | AB |
| C1409 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1410 | 9NK1547691200 | J | 10 | 16V | Ceramic | AB |
| C1411 | 9NK1512451000 | J | 5600p | 50V | Ceramic | AB |
| C1412 | 9NK1512451000 | J | 5600p | 50V | Ceramic | AB |
| C1413 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1414 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1415 | 9NKF144701433 | J | 47 | 25V | Electrolytic | AC |
| C1416 | 9NKF144701433 | J | 47 | 25V | Electrolytic | AC |
| C1417 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1418 | 9NK1547667100 | J | 1 | 16V | Ceramic | AB |
| C1419 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1420 | 9NK1547667100 | J | 1 | 16V | Ceramic | AB |
| C1421 | 9NK1547667100 | J | 1 | 16V | Ceramic | AB |
| C1422 | 9NK1547667100 | J | 1 | 16V | Ceramic | AB |
| C1423 | 9NK1512449000 | J | 4700p | 50V | Ceramic | AB |
| C1424 | 9NK1511445000 | J | 1000p | 50V | Ceramic | AB |
| C1425 | 9NK1557682000 | J | 0.068 | 25V | Ceramic | AB |
| C1426 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1427 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1428 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1429 | 9NKF144701433 | J | 47 | 25V | Electrolytic | AC |
| C1430 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1431 | 9NKF122201233 | J | 22 | 16V | Electrolytic | AB |
| C1432 | 9NK1557682000 | J | 0.068 | 25V | Ceramic | AB |
| C1433 | 9NK1511445000 | J | 1000p | 50V | Ceramic | AB |
| C1434 | 9NK1512449000 | J | 4700p | 50V | Ceramic | AB |
| C1435 | 9NK1547667100 | J | 1 | 16V | Ceramic | AB |
| C1436 | 9NK1547667100 | J | 1 | 16V | Ceramic | AB |
| C1437 | 9NK1547667100 | J | 1 | 16V | Ceramic | AB |
| C1438 | 9NK1512449000 | J | 4700p | 50V | Ceramic | AB |
| C1439 | 9NK1511445000 | J | 1000p | 50V | Ceramic | AB |
| C1440 | 9NK1557682000 | J | 0.068 | 25V | Ceramic | AB |
| C1441 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1442 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1443 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1444 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C1445 | 9NKF122201233 | J | 22 | 16V | Electrolytic | AB |
| C1446 | 9NK1557682000 | J | 0.068 | 25V | Ceramic | AB |
| C1447 | 9NK1511445000 | J | 1000p | 50V | Ceramic | AB |
| C1448 | 9NK1512449000 | J | 4700p | 50V | Ceramic | AB |
| C1449 | 9NK1547667100 | J | 1 | 16V | Ceramic | AB |
| C2601 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2602 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2701 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2702 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2703 | 9NK1547691200 | J | 10 | 16V | Ceramic | AB |
| C2704 | 9NKF141001233 | J | 10 | 25V | Electrolytic | AC |
| C2705 | 9NK1547691200 | J | 10 | 16V | Ceramic | AB |
| C2706 | 9NK1512454000 | J | 0.01 | 50V | Ceramic | AB |
| C2707 | 9NKF141001233 | J | 10 | 25V | Electrolytic | AC |
| C2708 | 9NKF141001233 | J | 10 | 25V | Electrolytic | AC |
| C2709 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2710 | 9NK1512477000 | J | 2700p | 50V | Ceramic | AB |
| C2711 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2712 | 9NK1512477000 | J | 2700p | 50V | Ceramic | AB |
| C2713 | 9NK1512449000 | J | 4700p | 50V | Ceramic | AB |
| C2714 | 9NK1547667100 | J | 1 | 16V | Ceramic | AB |
| C2715 | 9NK1511445000 | J | 1000p | 50V | Ceramic | AB |
| C2716 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2717 | 9NK1511445000 | J | 1000p | 50V | Ceramic | AB |
| C2718 | 9NK1543659000 | J | 0.22 | 16V | Ceramic | AB |
| C2719 | 9NK1511445000 | J | 1000p | 50V | Ceramic | AB |
| C2720 | 9NK1512451000 | J | 5600p | 50V | Ceramic | AB |
| C2721 | 9NK1512454000 | J | 0.01 | 50V | Ceramic | AB |
| C2722 | 9NK1547692000 | J | 0.15 | 16V | Ceramic | AB |
| C2723 | 9NKF141001233 | J | 10 | 25V | Electrolytic | AC |
| C2724 | 9NKF144701433 | J | 47 | 25V | Electrolytic | AC |
| C2725 | 9NK1512454000 | J | 0.01 | 50V | Ceramic | AB |
| C2726 | 9NK1512454000 | J | 0.01 | 50V | Ceramic | AB |
| C2727 | 9NKF141001233 | J | 10 | 25V | Electrolytic | AC |
| C2728 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2732 | 9NKF141001233 | J | 10 | 25V | Electrolytic | AC |
| C2733 | 9NKF144701433 | J | 47 | 25V | Electrolytic | AC |
| C2734 | 9NK1512454000 | J | 0.01 | 50V | Ceramic | AB |
| C2735 | 9NK1512454000 | J | 0.01 | 50V | Ceramic | AB |
| C2736 | 9NKF141001233 | J | 10 | 25V | Electrolytic | AC |
| C2737 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2801 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2802 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2803 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2804 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2805 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2806 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2807 | 9NKF141001233 | J | 10 | 25V | Electrolytic | AC |
| C2808 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2810 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2811 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C2826 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C3501 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C3502 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C3503 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C3504 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C3505 | 9NKF122201233 | J | 22 | 16V | Electrolytic | AB |
| C3506 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C3507 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C3508 | 9NK1547667100 | J | 1 | 16V | Ceramic | AB |
| C3509 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C3510 | 9NKF122201233 | J | 22 | 16V | Electrolytic | AB |
| C3511 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C3512 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C3513 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C3514 | 9NK1511514000 | J | 22p | 50V | Ceramic | AB |
| C3515 | 9NK1511514000 | J | 22p | 50V | Ceramic | AB |
| C3601 | 9NKF141001233 | J | 10 | 25V | Electrolytic | AC |

## 9NK5600204252

## MAIN UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C3602 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C3603 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3604 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3605 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3606 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3607 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3608 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3609 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3610 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3611 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3612 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3613 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3614 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3615 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3616 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3617 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3618 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3619 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3620 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3621 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3622 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3623 | 9NK1511514000 | J | 22p 50V Ceramic | AB |
| C3624 | 9NK1511514000 | J | 22p 50V Ceramic | AB |
| C3625 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3626 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3627 | 9NK1542458000 | J | 0.1 16V Ceramic | |
| C3628 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3629 | 9NK1511508000 | J | 10p 50V Ceramic | AB |
| C3630 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3631 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3632 | 9NK1511538000 | J | 220p 50V Ceramic | AB |
| C3633 | 9NK1511508000 | J | 10p 50V Ceramic | AB |
| C3634 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3635 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3636 | 9NK1547667100 | J | 1 16V Ceramic | AB |
| C3637 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3638 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3639 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3801 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3802 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3803 | 9NK1547667100 | J | 1 16V Ceramic | AB |
| C3804 | 9NK1547667100 | J | 1 16V Ceramic | AB |
| C3805 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3806 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3807 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3808 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3809 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3810 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3811 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C4501 | 9NKF152281033 | J | 2.2 35V Electrolytic | AB |
| C4502 | 9NKF152281033 | J | 2.2 35V Electrolytic | AB |
| C4503 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C4504 | 9NKF152281033 | J | 2.2 35V Electrolytic | AB |
| C4505 | 9NKF152281033 | J | 2.2 35V Electrolytic | AB |
| C4506 | 9NKF152281033 | J | 2.2 35V Electrolytic | AB |
| C5601 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C5602 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7001 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7002 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7003 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C7004 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7005 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7006 | 9NKF122201233 | J | 22 16V Electrolytic | AB |
| C7007 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7008 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7009 | 9NKF144701433 | J | 47 25V Electrolytic | AC |
| C7010 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7011 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7012 | 9NKF144701433 | J | 47 25V Electrolytic | AC |
| C7013 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C7014 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C7015 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7016 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7017 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7019 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C7020 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7021 | 9NKF144701433 | J | 47 25V Electrolytic | AC |
| C7022 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7024 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C7025 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7026 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7201 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7202 | 9NKF144701433 | J | 47 25V Electrolytic | AC |
| C7203 | 9NKF144701433 | J | 47 25V Electrolytic | AC |
| C7204 | 9NKF144701433 | J | 47 25V Electrolytic | AC |
| C7205 | 9NKF144701433 | J | 47 25V Electrolytic | AC |
| C7206 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7207 | 9NK1547691200 | J | 10 16V Ceramic | AB |
| C7212 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7213 | 9NK1547691200 | J | 10 16V Ceramic | AB |
| C7214 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C7215 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7216 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7217 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7218 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7219 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7220 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7221 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C7222 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7223 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7226 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7227 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7228 | 9NK1547691200 | J | 10 16V Ceramic | AB |
| C7229 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C7230 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7231 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7232 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7233 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C7234 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7401 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7402 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7403 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C7404 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7405 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7406 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7407 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C7408 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C7410 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7411 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7414 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7415 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7417 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7418 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7420 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C7421 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C7423 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7424 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7425 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7426 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7427 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7428 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C7429 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7430 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C7431 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C7432 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7501 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C7502 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |

### RESISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R1401 | 9NK0343562300 | J | 5.6k 1/10W Metal Oxide | AB |
| R1402 | 9NK0343562300 | J | 5.6k 1/10W Metal Oxide | AB |
| R1403 | 9NK0341069300 | J | 27k 1/10W Metal Oxide | AB |
| R1404 | 9NK0341172300 | J | 7.32k1/10W Metal Oxide | AB |
| R1405 | 9NK0341256300 | J | 3k 1/10W Metal Oxide | AB |
| R1408 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R1409 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |

## 9NK5600204252
## MAIN UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R1410 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R1411 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R1412 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R1413 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R1414 | 9NK0343473300 | J | 47k 1/10W Metal Oxide | AB |
| R1415 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R1416 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R1417 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R1418 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R1419 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R1420 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R1421 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R1422 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R1423 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R1424 | 9NK0343473300 | J | 47k 1/10W Metal Oxide | AB |
| R1425 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R1426 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R1427 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R1428 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R1430 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R1431 | 9NK0341077300 | J | 47k 1/10W Metal Oxide | AB |
| R1432 | 9NK0341065300 | J | 18k 1/10W Metal Oxide | AB |
| R1433 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2601 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2602 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2603 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2605 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2606 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2607 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2608 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2609 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2610 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2611 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2617 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2618 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2619 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2620 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2621 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2622 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2623 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2624 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2625 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2626 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2627 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2628 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2629 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2701 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2702 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2703 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2704 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2705 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2706 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2707 | 9NK0333568500 | J | 5.6 1W Metal Oxide | AB |
| R2708 | 9NK0333568500 | J | 5.6 1W Metal Oxide | AB |
| R2709 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2710 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2711 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2712 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2713 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2714 | 9NK0313151000 | J | 150 1/4W Metal Oxide | AB |
| R2715 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2716 | 9NK0313151000 | J | 150 1/4W Metal Oxide | AB |
| R2717 | 9NK0313151000 | J | 150 1/4W Metal Oxide | AB |
| R2718 | 9NK0343305300 | J | 3M 1/10W Metal Oxide | AB |
| R2719 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2720 | 9NK0313108000 | J | 1 1/4W Metal Oxide | AB |
| R2721 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2723 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R2725 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R2726 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2727 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2728 | 9NK0313108000 | J | 1 1/4W Metal Oxide | AB |
| R2729 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2731 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R2733 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R2735 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R2736 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R2737 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R2738 | 9NK0333478500 | J | 4.7 1W Metal Oxide | AC |
| R2739 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2741 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2742 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2743 | 9NK0333478500 | J | 4.7 1W Metal Oxide | AC |
| R2744 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2746 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2747 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2748 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R2749 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R2750 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R2751 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R2753 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2754 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2755 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2756 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2757 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2758 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2759 | 9NK0341062300 | J | 15k 1/10W Metal Oxide | AB |
| R2760 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2761 | 9NK0341062300 | J | 15k 1/10W Metal Oxide | AB |
| R2762 | 9NK0341062300 | J | 15k 1/10W Metal Oxide | AB |
| R2763 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2764 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2765 | 9NK0341062300 | J | 15k 1/10W Metal Oxide | AB |
| R2801 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2802 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2803 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2804 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2805 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2806 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2807 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2808 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2809 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2810 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R2811 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2812 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2813 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2815 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R2816 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2818 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2820 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2821 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2822 | 9NK0343182300 | J | 1.8k 1/10W Metal Oxide | AB |
| R2824 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2826 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2827 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R2828 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R2830 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2832 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2833 | 9NK0341047300 | J | 2.7k 1/10W Metal Oxide | AB |
| R2834 | 9NK0343122300 | J | 1.2k 1/10W Metal Oxide | AB |
| R2835 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2836 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2837 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2838 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2839 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2840 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2841 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2842 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2843 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2844 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2845 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2846 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2847 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2848 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2849 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2850 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |

## 9NK5600204252

## MAIN UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R2851 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2852 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2853 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2854 | 9NK0341067300 | J | 22k 1/10W Metal Oxide | AB |
| R2855 | 9NK0341067300 | J | 22k 1/10W Metal Oxide | AB |
| R2857 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2858 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2859 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2860 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2861 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2864 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R2865 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R2866 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2868 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2869 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2870 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2871 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2872 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2873 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2874 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2875 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2876 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2877 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R2878 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2879 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R2880 | 9NK0341016300 | J | 22 1/10W Metal Oxide | AB |
| R2881 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R2882 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2883 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2884 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2885 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R2886 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2887 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2888 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2889 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2890 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2891 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2892 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2893 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R2894 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2895 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3501 | 9NK0341424300 | J | 51 1/10W Metal Oxide | AB |
| R3502 | 9NK0341424300 | J | 51 1/10W Metal Oxide | AB |
| R3503 | 9NK0341424300 | J | 51 1/10W Metal Oxide | AB |
| R3504 | 9NK0341424300 | J | 51 1/10W Metal Oxide | AB |
| R3508 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3509 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3510 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3511 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3515 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3516 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3517 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3518 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3519 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3520 | 9NK0343470300 | J | 47 1/10W Metal Oxide | AB |
| R3521 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3522 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3523 | 9NK0619900305 | J | 47 1/16W Chip Array | AB |
| R3524 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3525 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3526 | 9NK0343470300 | J | 47 1/10W Metal Oxide | AB |
| R3527 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3528 | 9NK0343202300 | J | 2k 1/10W Metal Oxide | AB |
| R3530 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3531 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3532 | 9NK0343470300 | J | 47 1/10W Metal Oxide | AB |
| R3533 | 9NK0343152300 | J | 1.5k 1/10W Metal Oxide | AB |
| R3534 | 9NK0619900305 | J | 47 1/16W Chip Array | AB |
| R3535 | 9NK0619900305 | J | 47 1/16W Chip Array | AB |
| R3536 | 9NK0343470300 | J | 47 1/10W Metal Oxide | AB |
| R3537 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3538 | 9NK0619900705 | J | 10k 1/16W Chip Array | AB |
| R3539 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3541 | 9NK0343562300 | J | 5.6k 1/10W Metal Oxide | AB |
| R3542 | 9NK0343562300 | J | 5.6k 1/10W Metal Oxide | AB |
| R3544 | 9NK0343470300 | J | 47 1/10W Metal Oxide | AB |
| R3545 | 9NK0343470300 | J | 47 1/10W Metal Oxide | AB |
| R3546 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3547 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R3601 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R3602 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3603 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3604 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3605 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3606 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3607 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3608 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3609 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3610 | 9NK0343393300 | J | 39k 1/10W Metal Oxide | AB |
| R3611 | 9NK0343393300 | J | 39k 1/10W Metal Oxide | AB |
| R3612 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R3613 | 9NK0343393300 | J | 39k 1/10W Metal Oxide | AB |
| R3614 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3615 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3616 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3617 | 9NK0343393300 | J | 39k 1/10W Metal Oxide | AB |
| R3618 | 9NK0619903205 | J | 0 1/16W Chip Array | AB |
| R3619 | 9NK0619903205 | J | 0 1/16W Chip Array | AB |
| R3620 | 9NK0343393300 | J | 39k 1/10W Metal Oxide | AB |
| R3621 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3623 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3624 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3627 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3628 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3630 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3631 | 9NK0619903205 | J | 0 1/16W Chip Array | AB |
| R3632 | 9NK0619903205 | J | 0 1/16W Chip Array | AB |
| R3637 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3638 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3639 | 9NK0619903205 | J | 0 1/16W Chip Array | AB |
| R3640 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3641 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R3643 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3644 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3646 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3647 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3648 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R3651 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3652 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3653 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3654 | 9NK0619903205 | J | 0 1/16W Chip Array | AB |
| R3655 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3657 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3660 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3661 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3663 | 9NK0619903205 | J | 0 1/16W Chip Array | AB |
| R3664 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3665 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3667 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3669 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R3670 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3671 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R3672 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R3673 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3678 | 9NK0619903205 | J | 0 1/16W Chip Array | AB |
| R3680 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R3682 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R3683 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R3685 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3686 | 9NK0619903205 | J | 0 1/16W Chip Array | AB |
| R3687 | 9NK0341087300 | J | 100k 1/10W Metal Oxide | AB |
| R3689 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3690 | 9NK0341087300 | J | 100k 1/10W Metal Oxide | AB |
| R3691 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3692 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3693 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |

## 9NK5600204252

## MAIN UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R3694 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3696 | 9NK0341087300 | J | 100k 1/10W Metal Oxide | AB |
| R3697 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3698 | 9NK0341087300 | J | 100k 1/10W Metal Oxide | AB |
| R3699 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3700 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3702 | 9NK0341087300 | J | 100k 1/10W Metal Oxide | AB |
| R3704 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3706 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3707 | 9NK0343470300 | J | 47 1/10W Metal Oxide | AB |
| R3708 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3709 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3710 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R3711 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3712 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R3713 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R3714 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R3716 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R3717 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3718 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3719 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3720 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3721 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3722 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R3723 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3724 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R3726 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3727 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3728 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3729 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3731 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3733 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3734 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3735 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3736 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3737 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3738 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3739 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3740 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3741 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3742 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3743 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R3744 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3745 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3746 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3747 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3748 | 9NK0343470300 | J | 47 1/10W Metal Oxide | AB |
| R3749 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R3750 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3751 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3752 | 9NK0341071300 | J | 33k 1/10W Metal Oxide | AB |
| R3753 | 9NK0343393300 | J | 39k 1/10W Metal Oxide | AB |
| R3754 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3755 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3756 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3757 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3758 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3759 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3801 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3802 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R3803 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3804 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3805 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R3806 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R3807 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3808 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3809 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3810 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3811 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3812 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3813 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3814 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3816 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3817 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R4501 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R4502 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R4503 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R4504 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R4505 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R4507 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R4508 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R4510 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R4511 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R4512 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R4513 | 9NK0333338500 | J | 3.3 1W Metal Oxide | AB |
| R4514 | 9NK0333338500 | J | 3.3 1W Metal Oxide | AB |
| R4515 | 9NK0343393300 | J | 39k 1/10W Metal Oxide | AB |
| R4516 | 9NK0343393300 | J | 39k 1/10W Metal Oxide | AB |
| R4517 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R5601 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R5602 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7002 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R7003 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7006 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R7007 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R7008 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R7012 | 9NK0313108000 | J | 1 1/4W Metal Oxide | AB |
| R7013 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7014 | 9NK0313108000 | J | 1 1/4W Metal Oxide | AB |
| R7015 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7016 | 9NK0313108000 | J | 1 1/4W Metal Oxide | AB |
| R7018 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7020 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R7021 | 9NK0313108000 | J | 1 1/4W Metal Oxide | AB |
| R7022 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R7023 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7024 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R7025 | 9NK0313108000 | J | 1 1/4W Metal Oxide | AB |
| R7027 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R7028 | 9NK0313108000 | J | 1 1/4W Metal Oxide | AB |
| R7029 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R7030 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R7033 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R7034 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7035 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R7036 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7037 | 9NK0341062300 | J | 15k 1/10W Metal Oxide | AB |
| R7038 | 9NK0341062300 | J | 15k 1/10W Metal Oxide | AB |
| R7039 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R7040 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R7041 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R7042 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R7043 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R7201 | 9NK0313108000 | J | 1 1/4W Metal Oxide | AB |
| R7202 | 9NK0313108000 | J | 1 1/4W Metal Oxide | AB |
| R7203 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7204 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7205 | 9NK0341067300 | J | 22k 1/10W Metal Oxide | AB |
| R7206 | 9NK0341067300 | J | 22k 1/10W Metal Oxide | AB |
| R7207 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R7208 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R7209 | 9NK0341071300 | J | 33k 1/10W Metal Oxide | AB |
| R7210 | 9NK0341071300 | J | 33k 1/10W Metal Oxide | AB |
| R7211 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7212 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7213 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7214 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7215 | 9NK0313108000 | J | 1 1/4W Metal Oxide | AB |
| R7216 | 9NK0313108000 | J | 1 1/4W Metal Oxide | AB |
| R7217 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7218 | 9NK0341067300 | J | 22k 1/10W Metal Oxide | AB |
| R7219 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |
| R7220 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7221 | 9NK0341071300 | J | 33k 1/10W Metal Oxide | AB |
| R7222 | 9NK0341067300 | J | 22k 1/10W Metal Oxide | AB |
| R7223 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7224 | 9NK0341061300 | J | 12k 1/10W Metal Oxide | AB |

## 9NK5600204252
## MAIN UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R7225 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7226 | 9NK0341071300 | J | 33k 1/10W Metal Oxide | AB |
| R7227 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7228 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7229 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7230 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7231 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7232 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7233 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7236 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R7238 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7239 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7240 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7242 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7243 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7244 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7245 | 9NK0341075300 | J | 40.2k1/10W Metal Oxide | AB |
| R7246 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7248 | 9NK0341075300 | J | 40.2k1/10W Metal Oxide | AB |
| R7249 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7254 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7255 | 9NK0341062300 | J | 15k 1/10W Metal Oxide | AB |
| R7257 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7258 | 9NK0341062300 | J | 15k 1/10W Metal Oxide | AB |
| R7259 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7260 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7261 | 9NK0341016300 | J | 22 1/10W Metal Oxide | AB |
| R7262 | 9NK0341016300 | J | 22 1/10W Metal Oxide | AB |
| R7263 | 9NK0341016300 | J | 22 1/10W Metal Oxide | AB |
| R7264 | 9NK0341518300 | J | 18.7k1/10W Metal Oxide | AB |
| R7265 | 9NK0343330300 | J | 33 1/10W Metal Oxide | AB |
| R7267 | 9NK0343330300 | J | 33 1/10W Metal Oxide | AB |
| R7269 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7270 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7274 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R7276 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7277 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7278 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7279 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7280 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7281 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7282 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7283 | 9NK0341075300 | J | 40.2k1/10W Metal Oxide | AB |
| R7284 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7286 | 9NK0341075300 | J | 40.2k1/10W Metal Oxide | AB |
| R7287 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7290 | 9NK0341062300 | J | 15k 1/10W Metal Oxide | AB |
| R7292 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7293 | 9NK0341062300 | J | 15k 1/10W Metal Oxide | AB |
| R7295 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7296 | 9NK0341062300 | J | 15k 1/10W Metal Oxide | AB |
| R7297 | 9NK0341172300 | J | 7.32k1/10W Metal Oxide | AB |
| R7298 | 9NK0341261300 | J | 2.05k1/10W Metal Oxide | AB |
| R7299 | 9NK0341172300 | J | 7.32k1/10W Metal Oxide | AB |
| R7300 | 9NK0341261300 | J | 2.05k1/10W Metal Oxide | AB |
| R7301 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7302 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7303 | 9NK0341016300 | J | 22 1/10W Metal Oxide | AB |
| R7304 | 9NK0341016300 | J | 22 1/10W Metal Oxide | AB |
| R7305 | 9NK0341016300 | J | 22 1/10W Metal Oxide | AB |
| R7306 | 9NK0343330300 | J | 33 1/10W Metal Oxide | AB |
| R7307 | 9NK0343330300 | J | 33 1/10W Metal Oxide | AB |
| R7308 | 9NK0341518300 | J | 18.7k1/10W Metal Oxide | AB |
| R7309 | 9NK0343563300 | J | 56k 1/10W Metal Oxide | AB |
| R7312 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7314 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7318 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7323 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7324 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7325 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7330 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R7331 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R7333 | 9NK0343563300 | J | 56k 1/10W Metal Oxide | AB |
| R7334 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7339 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7401 | 9NK0343511300 | J | 510 1/10W Metal Oxide | AB |
| R7402 | 9NK0343511300 | J | 510 1/10W Metal Oxide | AB |
| R7406 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7407 | 9NK0343152300 | J | 1.5k 1/10W Metal Oxide | AB |
| R7408 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7409 | 9NK0343152300 | J | 1.5k 1/10W Metal Oxide | AB |
| R7412 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7413 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7414 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7415 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7418 | 9NK0341069300 | J | 27k 1/10W Metal Oxide | AB |
| R7419 | 9NK0341069300 | J | 27k 1/10W Metal Oxide | AB |
| R7424 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7425 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7428 | 9NK0343511300 | J | 510 1/10W Metal Oxide | AB |
| R7429 | 9NK0343511300 | J | 510 1/10W Metal Oxide | AB |
| R7434 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7435 | 9NK0343152300 | J | 1.5k 1/10W Metal Oxide | AB |
| R7436 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7437 | 9NK0343152300 | J | 1.5k 1/10W Metal Oxide | AB |
| R7440 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7441 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7442 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7443 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7445 | 9NK0341069300 | J | 27k 1/10W Metal Oxide | AB |
| R7447 | 9NK0341069300 | J | 27k 1/10W Metal Oxide | AB |
| R7451 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7452 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7453 | 9NK0343511300 | J | 510 1/10W Metal Oxide | AB |
| R7454 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7455 | 9NK0343152300 | J | 1.5k 1/10W Metal Oxide | AB |
| R7456 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7458 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7459 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7460 | 9NK0341069300 | J | 27k 1/10W Metal Oxide | AB |
| R7462 | 9NK0343511300 | J | 510 1/10W Metal Oxide | AB |
| R7463 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7464 | 9NK0343152300 | J | 1.5k 1/10W Metal Oxide | AB |
| R7465 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R7467 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R7468 | 9NK0341069300 | J | 27k 1/10W Metal Oxide | AB |
| R7469 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7501 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R7507 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |

### SWITCHES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| S3601 | 9NK3000700435 | J | Switch | AK |
| S3602 | 9NK3000901620 | J | Switch | AE |
| S7001 | 9NK3000700435 | J | Switch | AK |

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| FB1401 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB1402 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB1403 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB2601 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB2701 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB2802 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB2803 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB3501 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB3502 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB3503 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB3601 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB3602 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB3603 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB3801 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB3802 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB4501 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB5601 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB5602 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB7001 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB7002 | 9NK2921174612 | J | Ferrite Bead | AB |

## 9NK5600204252
## MAIN UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| FB7004 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB7005 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB7201 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB7202 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB7203 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB7204 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB7205 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB7206 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB7207 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB7208 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB7209 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7210 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7211 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7212 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7213 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7214 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7215 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7217 | 9NK2921174612 | J | Ferrite Bead | AB |
| FB7401 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7402 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7403 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7404 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7409 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7410 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7411 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7412 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7413 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7414 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7415 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7416 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7417 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7418 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7419 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7420 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7421 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7422 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB7501 | 9NK2921174612 | J | Ferrite Bead | AB |
| CN1401 | 9NK3070070600 | J | Connector, 9Pin | AF |
| CN2601 | 9NK3071587866 | J | Connector, 12Pin | AG |
| CN2602 | 9NK3071587766 | J | Connector, 10Pin | AF |
| CN2700 | 9NK3071297134 | J | Connector, 5Pin | AB |
| CN2702 | 9NK3071297234 | J | Connector, 6Pin | AC |
| CN2703 | 9NK3075416028 | J | Conn Connector, 4Pin | AE |
| CN2704 | 9NK3071297034 | J | Connector, 4Pin | AB |
| CN2801 | 9NK3070070200 | J | Connector, 2Pin | AD |
| CN2802 | 9NK3070070200 | J | Connector, 2Pin | AD |
| CN3601 | 9NK3070070900 | J | Connector, 6Pin | AE |
| CN5601 | 9NK3071296934 | J | Connector, 3Pin | AB |
| CN5602 | 9NK3071296934 | J | Connector, 3Pin | AB |
| CN7001 | 9NK3070070200 | J | Connector, 2Pin | AD |
| CN7004 | 9NK3070070100 | J | Connector, 5Pin | AE |
| CN7005 | 9NK3070070900 | J | Connector, 6Pin | AE |
| CN7201 | 9NK3070070900 | J | Connector, 6Pin | AE |
| CN7203 | 9NK3070070100 | J | Connector, 5Pin | AE |
| CN7204 | 9NK3070070800 | J | Connector, 3Pin | AD |
| CN7205 | 9NK3070070200 | J | Connector, 2Pin | AD |
| CN7401 | 9NK3070070528 | J | Connector, 4Pin | AE |
| CN7402 | 9NK3070070528 | J | Connector, 4Pin | AE |
| CN7403 | 9NK3070070800 | J | Connector, 3Pin | AD |
| CN7404 | 9NK3070070528 | J | Connector, 4Pin | AE |
| CN7405 | 9NK3070070800 | J | Connector, 3Pin | AD |
| CN7406 | 9NK3070070800 | J | Connector, 3Pin | AD |
| CN7501 | 9NK3070070200 | J | Connector, 2Pin | AD |
| CN8001 | 9NK3070349027 | J | Connector, 80Pin | AY |
| CN8002 | 9NK3070349127 | J | Connector, 60Pin | AX |

## 9NK5600204253
## FORMATTER UNIT

### INTEGRATED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| IC9001 | 9NK2600168008 | J | Frequency DRCG, CDCR83DBQR | AX |
| IC9003 | 9NK2633005608 | J | ASDLP, 2501963-5 | BY |
| IC9004 | 9NK2610365832 | J | Flash Memory, AM29LV800BB | AX |
| IC9006 | 9NK2610555214 | J | D-RDRAM 256K, K4R271669F | BG |
| IC9007 | 9NK2500058937 | J | Regurator, AIC1117 | AE |
| IC9301 | 9NK2510264114 | J | DMD Power and Reset Driver | BR |

### DIODES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D9301 | 9NKI820870037 | J | SFPB-76 | AF |
| D9302 | 9NKI820870037 | J | SFPB-76 | AF |
| D9303 | 9NKJ823180036 | J | Zener Diode PDZ-8.2B | AE |

### PACKAGED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| X9001 | 9NK0732340208 | J | Oscillator 100MHz | AS |
| X9002 | 9NK0732310208 | J | Oscillator 60MHz | AP |

### COILS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| L9301 | 9NK2816725880 | J | Inductor, 22µH (M) | AF |
| L9302 | 9NK2816725880 | J | Inductor, 22µH (M) | AF |

### CAPACITORS

| Ref. No. | Part No. | ★ | Description | | | Code |
|---|---|---|---|---|---|---|
| C9001 | 9NKF121001133 | J | 10 | 16V | Electrolytic | AB |
| C9002 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9003 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9004 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9006 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9007 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9008 | 9NK1511526000 | J | 68p | 50V | Ceramic | AB |
| C9009 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9010 | 9NK1511526000 | J | 68p | 50V | Ceramic | AB |
| C9011 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9013 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9014 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9015 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9016 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9019 | 9NKF121011333 | J | 100 | 16V | Electrolytic | AC |
| C9021 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9022 | 9NKF121001133 | J | 10 | 16V | Electrolytic | AB |
| C9023 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9024 | 9NK1511526000 | J | 68p | 50V | Ceramic | AB |
| C9025 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9026 | 9NK1511526000 | J | 68p | 50V | Ceramic | AB |
| C9027 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9028 | 9NKF161081133 | J | 1 | 50V | Electrolytic | AB |
| C9029 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9030 | 9NK151450B002 | J | 3.9p | 50V | Ceramic | AB |
| C9032 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9034 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9035 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9036 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9038 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9041 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9042 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9043 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9044 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9045 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9050 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9053 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9055 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9057 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9059 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9061 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9062 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9063 | 9NKF121011333 | J | 100 | 16V | Electrolytic | AC |
| C9065 | 9NKF143301333 | J | 33 | 25V | Electrolytic | AB |

## 9NK5600204253

## FORMATTER (Continued)

| Ref. No. | Part No. | ★ | Description | | | Code |
|---|---|---|---|---|---|---|
| C9067 | 9NKF141001233 | J | 10 | 25V | Electrolytic | AC |
| C9069 | 9NKF121011333 | J | 100 | 16V | Electrolytic | AC |
| C9071 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9072 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9073 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9304 | 9NKF164781208 | J | 4.7 | 50V | Electrolytic | AB |
| C9305 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9306 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9307 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9308 | 9NKF161081133 | J | 1 | 50V | Electrolytic | AB |
| C9309 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9310 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9311 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9313 | 9NKF164781208 | J | 4.7 | 50V | Electrolytic | AB |
| C9314 | 9NKF141001233 | J | 10 | 25V | Electrolytic | AC |
| C9315 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9316 | 9NK1513488400 | J | 3.3 | 50V | Ceramic | AF |
| C9317 | 9NK1513488400 | J | 3.3 | 50V | Ceramic | AF |
| C9318 | 9NK1513091600 | J | 10 | 50V | Ceramic | AK |
| C9319 | 9NKF141001233 | J | 10 | 25V | Electrolytic | AC |
| C9320 | 9NK1513488400 | J | 3.3 | 50V | Ceramic | AF |
| C9321 | 9NK1552459100 | J | 0.22 | 25V | Ceramic | AB |
| C9322 | 9NKF164781208 | J | 4.7 | 50V | Electrolytic | AB |
| C9503 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9505 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9510 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9511 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9513 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9514 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9515 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9516 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9517 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9519 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9520 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9521 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9522 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9523 | 9NKF121001133 | J | 10 | 16V | Electrolytic | AB |
| C9524 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9525 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9528 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9529 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9530 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9531 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9532 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9533 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9535 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9536 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9537 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9538 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9542 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9543 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9544 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9545 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9546 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9547 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9548 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9549 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9550 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9551 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9552 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9553 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9554 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9555 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9558 | 9NKF022211433 | J | 220 | 6.3V | Electrolytic | AC |
| C9563 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9564 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9565 | 9NK1517658000 | J | 0.1 | 50V | Ceramic | AB |
| C9566 | 9NKF121001133 | J | 10 | 16V | Electrolytic | AB |

### RESISTORS

| Ref. No. | Part No. | ★ | Description | | | Code |
|---|---|---|---|---|---|---|
| R9001 | 9NK0343000300 | J | 0 | 1/10W | Metal Oxide | AB |
| R9003 | 9NK0341059300 | J | 10k | 1/10W | Metal Oxide | AB |
| R9005 | 9NK0341059300 | J | 10k | 1/10W | Metal Oxide | AB |
| R9006 | 9NK0341360300 | J | 110 | 1/10W | Metal Oxide | AB |
| R9007 | 9NK0341360300 | J | 110 | 1/10W | Metal Oxide | AB |
| R9008 | 9NK0341059300 | J | 10k | 1/10W | Metal Oxide | AB |
| R9010 | 9NK0341491300 | J | 56.2 | 1/10W | Metal Oxide | AB |
| R9011 | 9NK0341491300 | J | 56.2 | 1/10W | Metal Oxide | AB |
| R9101 | 9NK0343000300 | J | 0 | 1/10W | Metal Oxide | AB |
| R9102 | 9NK0343000300 | J | 0 | 1/10W | Metal Oxide | AB |
| R9106 | 9NK0343102300 | J | 1k | 1/10W | Metal Oxide | AB |
| R9116 | 9NK0343000300 | J | 0 | 1/10W | Metal Oxide | AB |
| R9131 | 9NK0343184300 | J | 180k | 1/10W | Metal Oxide | AB |
| R9132 | 9NK0343472300 | J | 4.7k | 1/10W | Metal Oxide | AB |
| R9134 | 9NK0343101300 | J | 100 | 1/10W | Metal Oxide | AB |
| R9135 | 9NK0341059300 | J | 10k | 1/10W | Metal Oxide | AB |
| R9136 | 9NK0343101300 | J | 100 | 1/10W | Metal Oxide | AB |
| R9137 | 9NK0343101300 | J | 100 | 1/10W | Metal Oxide | AB |
| R9138 | 9NK0343101300 | J | 100 | 1/10W | Metal Oxide | AB |
| R9139 | 9NK0343101300 | J | 100 | 1/10W | Metal Oxide | AB |
| R9140 | 9NK0343101300 | J | 100 | 1/10W | Metal Oxide | AB |
| R9201 | 9NK0619901105 | J | 33 | 1/16W | Chip Array | AB |
| R9202 | 9NK0619901105 | J | 33 | 1/16W | Chip Array | AB |
| R9203 | 9NK0619901105 | J | 33 | 1/16W | Chip Array | AB |
| R9204 | 9NK0619901105 | J | 33 | 1/16W | Chip Array | AB |
| R9206 | 9NK0341440300 | J | 39.2 | 1/10W | Metal Oxide | AB |
| R9207 | 9NK0341440300 | J | 39.2 | 1/10W | Metal Oxide | AB |
| R9208 | 9NK0619901105 | J | 33 | 1/16W | Chip Array | AB |
| R9209 | 9NK0619901105 | J | 33 | 1/16W | Chip Array | AB |
| R9210 | 9NK0619901105 | J | 33 | 1/16W | Chip Array | AB |
| R9301 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9302 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9303 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9304 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9305 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9306 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9307 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9308 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9309 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9310 | 9NK0341016300 | J | 22 | 1/10W | Metal Oxide | AB |
| R9311 | 9NK0343102300 | J | 1k | 1/10W | Metal Oxide | AB |
| R9312 | 9NK0343000300 | J | 0 | 1/10W | Metal Oxide | AB |
| R9314 | 9NK0343102300 | J | 1k | 1/10W | Metal Oxide | AB |
| R9315 | 9NK0343102300 | J | 1k | 1/10W | Metal Oxide | AB |
| R9316 | 9NK0343000300 | J | 0 | 1/10W | Metal Oxide | AB |
| R9319 | 9NK0341059300 | J | 10k | 1/10W | Metal Oxide | AB |
| R9322 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9323 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9324 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9325 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9326 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9327 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9328 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9329 | 9NK0619900605 | J | 22 | 1/16W | Chip Array | AB |
| R9330 | 9NK0341016300 | J | 22 | 1/10W | Metal Oxide | AB |
| R9501 | 9NK0343102300 | J | 1k | 1/10W | Metal Oxide | AB |
| R9502 | 9NK0343222300 | J | 2.2k | 1/10W | Metal Oxide | AB |
| R9503 | 9NK0343102300 | J | 1k | 1/10W | Metal Oxide | AB |
| R9506 | 9NK0341016300 | J | 22 | 1/10W | Metal Oxide | AB |
| R9507 | 9NK0341059300 | J | 10k | 1/10W | Metal Oxide | AB |
| R9508 | 9NK0343102300 | J | 1k | 1/10W | Metal Oxide | AB |
| R9509 | 9NK0343102300 | J | 1k | 1/10W | Metal Oxide | AB |
| R9510 | 9NK0341016300 | J | 22 | 1/10W | Metal Oxide | AB |
| R9511 | 9NK0343102300 | J | 1k | 1/10W | Metal Oxide | AB |
| R9512 | 9NK0343222300 | J | 2.2k | 1/10W | Metal Oxide | AB |
| R9513 | 9NK0343222300 | J | 2.2k | 1/10W | Metal Oxide | AB |
| R9514 | 9NK0343222300 | J | 2.2k | 1/10W | Metal Oxide | AB |
| R9515 | 9NK0343102300 | J | 1k | 1/10W | Metal Oxide | AB |
| R9518 | 9NK0341016300 | J | 22 | 1/10W | Metal Oxide | AB |
| R9522 | 9NK0341059300 | J | 10k | 1/10W | Metal Oxide | AB |
| R9523 | 9NK0341059300 | J | 10k | 1/10W | Metal Oxide | AB |
| R9532 | 9NK0343102300 | J | 1k | 1/10W | Metal Oxide | AB |
| R9542 | 9NK0341360300 | J | 110 | 1/10W | Metal Oxide | AB |
| R9554 | 9NK0343102300 | J | 1k | 1/10W | Metal Oxide | AB |
| R9559 | 9NK0343000300 | J | 0 | 1/10W | Metal Oxide | AB |
| R9560 | 9NK0343102300 | J | 1k | 1/10W | Metal Oxide | AB |
| R9562 | 9NK0341593300 | J | 34 | 1/10W | Metal Oxide | AB |

## 9NK5600204253

## FORMATTER (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R9565 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R9567 | 9NK0341560300 | J | 118 1/10W Metal Oxide | AB |
| R9569 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R9574 | 9NK0343222300 | J | 2.2k 1/10W Metal Oxide | AB |
| R9575 | 9NK0343222300 | J | 2.2k 1/10W Metal Oxide | AB |

### SWITCHES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| S9001 | 9NK3000700435 | J | Switch | AK |
| S9101 | 9NK3000701136 | J | Switch | AK |

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| FB9000 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB9001 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB9002 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB9004 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB9005 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB9006 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB9010 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB9011 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB9012 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB9502 | 9NK2921113712 | J | Ferrite Bead | AB |
| FB9507 | 9NK2921113712 | J | Ferrite Bead | AB |
| CN1000 | 9NK3070070100 | J | Connector, 5Pin | AE |
| CN9002 | 9NK3070286069 | J | Connector, 70Pin | AQ |
| CN9003 | 9NK3070070528 | J | Connector, 4Pin | AE |

## 9NK5600204232

## POWER UNIT

### INTEGRATED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| IC101 | 9NK2633002311 | J | DAP008CR2 | AG |
| IC102 | 9NK2500008010 | J | LM7815 | AE |
| ⚠ IC131 | 9NK2510325434 | J | TOP246YN | AP |
| IC201 | 9NK2500004214 | J | TL431 | AC |
| IC231 | 9NK2500004214 | J | TL431 | AC |
| IC232 | 9NK2500300114 | J | TPS75501KC | AY |
| IC280 | 9NK2500004214 | J | TL431 | AC |

### TRANSISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| ⚠ Q101 | 9NKP008040013 | J | FET, 2SK3303 | AL |
| Q102 | 9NKN524800005 | J | MMBT5401L | AC |
| ⚠ Q151 | 9NKO070270010 | J | FET, IRG4PC50WPBF | AV |
| ⚠ Q152 | 9NKP077450035 | J | FET, SPW20N60S5 | AT |
| Q154 | 9NKN231010011 | J | 2SB562CTZ | AC |
| Q200 | 9NKM522000405 | J | MMBT3904L | AB |
| Q203 | 9NKN522000205 | J | MMBT3906L | AB |
| ⚠ Q251 | 9NKP501200305 | J | FET, NTD4302T4G | AK |
| ⚠ Q252 | 9NKP501200305 | J | FET, NTD4302T4G | AK |
| Q282 | 9NKN522000205 | J | MMBT3906L | AB |
| Q283 | 9NKM522000405 | J | MMBT3904L | AB |

### DIODES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| ⚠ BD101 | 9NKG101120023 | J | 2KBP08M | AD |
| ⚠ CR151 | 9NKG124110020 | J | D25XB60 | AK |
| ⚠ D101 | 9NKH770630023 | J | RGF1M | AE |
| D102 | 9NKH300570434 | J | ER102 | AB |
| D103 | 9NKH300570434 | J | ER102 | AB |
| D104 | 9NKK850750023 | J | 1N4148W | AC |
| D105 | 9NKK850750023 | J | 1N4148W | AC |
| D131 | 9NKH770630023 | J | RGF1M | AE |
| D132 | 9NKH770570023 | J | RGF1D | AE |
| D133 | 9NKH770570023 | J | RGF1D | AE |
| D151 | 9NKK850750023 | J | 1N4148W | AC |
| D152 | 9NKH291360007 | J | BYM26C,133 | AE |
| D153 | 9NKH023610117 | J | RHRP1560 | AK |
| D154 | 9NKH024360017 | J | RHRP3060 | AP |
| D155 | 9NKL351610023 | J | 1N5406RL | AC |
| D156 | 9NKK850750023 | J | 1N4148W | AC |
| D157 | 9NKK850750023 | J | 1N4148W | AC |
| D201 | 9NKI791120017 | J | SS36 PKGP7 | |
| D231 | 9NKH791570023 | J | ES3D | AF |
| D232 | 9NKH013070631 | J | UGF10DCT | AG |
| D233 | 9NKI003870123 | J | MBRF2560CT | AL |
| D234 | 9NKI003870123 | J | MBRF2560CT | AL |
| D235 | 9NKK850750023 | J | 1N4148W | AC |
| ZD101 | 9NKJ812640231 | J | Zener Diode TLZ15B | AB |
| ZD131 | 9NKJ812550736 | J | Zener Diode 6.8B | |
| ZD132 | 9NKJ812690136 | J | Zener Diode RLZ 20B | |
| ZD201 | 9NKJ812530436 | J | Zener Diode RLZ 4.7B | AB |

### PACKAGED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| SCR201 | 9NK2200020004 | J | SCR, TYN0512 | AF |
| ⚠ U101 | 9NK2310089008 | J | Photo Copuler, TLP421 | AD |
| ⚠ U102 | 9NK2310089008 | J | Photo Copuler, TLP421 | AD |
| ⚠ U131 | 9NK2310089008 | J | Photo Copuler, TLP421 | AD |
| ⚠ U132 | 9NK2310089008 | J | Photo Copuler, TLP421 | AD |

### COILS AND TRABSFORMERS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| L131 | 9NK2921113712 | J | Ferrite Bead | AB |
| ⚠ L151 | 9NK2817187480 | J | Inductor, 597µH | AX |
| ⚠ L152 | 9NK2817130180 | J | Inductor, 3.7µH | AP |
| L201 | 9NK2816460810 | J | Inductor, 2µH | AC |
| L231 | 9NK2816460810 | J | Inductor, 2µH | AC |
| L232 | 9NK2816460810 | J | Inductor, 2µH | AC |
| L233 | 9NK2816310200 | J | Inductor, 12µH (K) | AC |
| L234 | 9NK2816310200 | J | Inductor, 12µH (K) | AC |
| L251 | 9NK2817185480 | J | Inductor, 12.57mH | AF |
| ⚠ T1 | 9NK2817341380 | J | Transformer | AL |
| ⚠ T2 | 9NK2811061680 | J | Transformer | AP |

## 9NK5600204232
## POWER UNIT (Continued)

### CAPACITORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C101 | 9NKQ422201003 | J | 22 450V Electrolytic | AK |
| C102 | 9NK1572446200 | J | 2200p 1kVCeramic | AC |
| C103 | 9NKQ154701103 | J | 47 35V Electrolytic | AC |
| C104 | 9NK1512467200 | J | 1 50V Ceramic | AB |
| C105 | 9NKQ144781103 | J | 4.7 25V Electrolytic | AB |
| C107 | 9NK1512440100 | J | 330p 50V Ceramic | AB |
| C108 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C109 | 9NKA144701103 | J | 47 25V Electrolytic | AB |
| C111 | 9NK1512467200 | J | 1 50V Ceramic | AB |
| C131 | 9NK1142354400 | J | 0.01 1kV Ceramic | AB |
| C132 | 9NK1142354400 | J | 0.01 1kV Ceramic | AB |
| C133 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C134 | 9NKQ144781103 | J | 4.7 25V Electrolytic | AB |
| C136 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C137 | 9NKA144701103 | J | 47 25V Electrolytic | AB |
| C138 | 9NKQ154701103 | J | 47 35V Electrolytic | AC |
| C139 | 9NKQ142201403 | J | 22 25V Electrolytic | |
| C151 | 9NK1762158W20 | J | 0.47 420V Electrolytic | AF |
| C152 | 9NK1621424410 | J | 6.8 100V Electrolytic | AP |
| C153 | 9NK1621424410 | J | 6.8 100V Electrolytic | AP |
| ⚠ C154 | 9NKD423310433 | J | 330 450V Electrolytic | AU |
| ⚠ C155 | 9NKD423310433 | J | 330 450V Electrolytic | AU |
| C156 | 9NKA144701103 | J | 47 25V Electrolytic | AB |
| C201 | 9NK1522446200 | J | 2200p 100V Ceramic | AB |
| C202 | 9NKQ101021103 | J | 1000 10V Electrolytic | AC |
| C203 | 9NKA102211103 | J | 220 10V Electrolytic | AB |
| C204 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C205 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C206 | 9NK1512440100 | J | 330p 50V Ceramic | AB |
| C207 | 9NK1511454100 | J | 0.01 50V Ceramic | AB |
| C208 | 9NK1512440100 | J | 330p 50V Ceramic | AB |
| C231 | 9NK1532438100 | J | 220p 200V Ceramic | AB |
| C232 | 9NKA144711403 | J | 470 25V Electrolytic | AC |
| C233 | 9NKA142211103 | J | 220 25V Electrolytic | AC |
| C234 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C235 | 9NK1532438100 | J | 220p 200V Ceramic | AB |
| C236 | 9NKA121521003 | J | 1500 16V Electrolytic | AE |
| C237 | 9NKA144711403 | J | 470 25V Electrolytic | AC |
| C238 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C239 | 9NK1532438100 | J | 220p 200V Ceramic | AB |
| C240A | 9NKQ103321003 | J | 3300 10V Electrolytic | AE |
| C240B | 9NKQ103321003 | J | 3300 10V Electrolytic | AE |
| C241 | 9NKQ101021103 | J | 1000 10V Electrolytic | AC |
| C242 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C243 | 9NK1532438100 | J | 220p 200V Ceramic | AB |
| C244 | 9NKA102221303 | J | 2200 10V Electrolytic | AE |
| C245 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C246 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C247 | 9NKA102221303 | J | 2200 10V Electrolytic | AE |
| C248 | 9NKA102221303 | J | 2200 10V Electrolytic | AE |
| C249 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C250 | 9NKQ103321003 | J | 3300 10V Electrolytic | AE |
| C253 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C260 | 9NKQ101021103 | J | 1000 10V Electrolytic | AC |
| C261 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C264 | 9NK15D300H203 | J | 22 6.3V Ceramic | AD |
| C282 | 9NKQ144781103 | J | 4.7 25V Electrolytic | AB |
| C283 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| ⚠ CY131 | 9NK1101346032 | J | 2200p 250VAC | AB |
| ⚠ CY132 | 9NK1101349032 | J | 4700p 250VAC | AC |

### RESISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R101A | 9NK0313101000 | J | 100 1/4W Metal Oxide | AB |
| R101B | 9NK0313101000 | J | 100 1/4W Metal Oxide | AB |
| R102 | 9NK0341588100 | J | 2.2k 1/8W Metal Oxide | AB |
| R103 | 9NK0313333000 | J | 33k 1/4W Metal Oxide | AB |
| R104 | 9NK0313333000 | J | 33k 1/4W Metal Oxide | AB |
| R105 | 9NK0341026100 | J | 100 1/8W Metal Oxide | AB |
| R106 | 9NK0341047100 | J | 2.7k 1/8W Metal Oxide | AB |
| R107 | 9NK0343303100 | J | 30k 1/8W Metal Oxide | AB |
| R108 | 9NK0133338022 | J | 3.3 2W | AB |
| R109 | 9NK0341059100 | J | 10k 1/8W Metal Oxide | AB |
| R110 | 9NK0341012100 | J | 10 1/8W Metal Oxide | AB |
| R112 | 9NK0311202000 | J | 4.75k1/4W Metal Oxide | AB |
| R114 | 9NK0123100000 | J | 10 1/2W | AB |
| R115A | 9NK0401418004 | J | 649k 1/4W Metal Oxide | AB |
| R115B | 9NK0401418004 | J | 649k 1/4W Metal Oxide | AB |
| R115C | 9NK0401418004 | J | 649k 1/4W Metal Oxide | AB |
| R116 | 9NK0910500200 | J | 5 , NTC/3A | AB |
| R117 | 9NK0311113000 | J | 2k 1/4W Metal Oxide | AB |
| R131A | 9NK0393154600 | J | 150k 3/4W Metal Oxide | AB |
| R131B | 9NK0393154600 | J | 150k 3/4W Metal Oxide | AB |
| R132 | 9NK0123100000 | J | 10 1/2W | AB |
| R133A | 9NK0311640000 | J | 715k 1/4W Metal Oxide | AB |
| R133B | 9NK0311640000 | J | 715k 1/4W Metal Oxide | AB |
| R133C | 9NK0311640000 | J | 715k 1/4W Metal Oxide | AB |
| R134 | 9NK0393470600 | J | 47 3/4W Metal Oxide | AB |
| R135 | 9NK0313000000 | J | 0 1/4W Metal Oxide | AB |
| R136 | 9NK0341012100 | J | 10 1/8W Metal Oxide | AB |
| R151 | 9NK0311578000 | J | 7.5 1/4W Metal Oxide | AB |
| R152 | 9NK0311578000 | J | 7.5 1/4W Metal Oxide | AB |
| R153 | 9NK0311113000 | J | 2k 1/4W Metal Oxide | AB |
| R154 | 9NK0233079103 | J | 0.07 7W | AC |
| R155 | 9NK0233079103 | J | 0.07 7W | AC |
| R156 | 9NK0311578000 | J | 7.5 1/4W Metal Oxide | AB |
| R157 | 9NK0311026000 | J | 100 1/4W Metal Oxide | AB |
| R158 | 9NK0311578000 | J | 7.5 1/4W Metal Oxide | AB |
| R159 | 9NK0311113000 | J | 2k 1/4W Metal Oxide | AB |
| R160A | 9NK0311417000 | J | 46.4k1/4W Metal Oxide | AB |
| R160B | 9NK0311417000 | J | 46.4k1/4W Metal Oxide | AB |
| R160C | 9NK0311417000 | J | 46.4k1/4W Metal Oxide | AB |
| R160D | 9NK0311417000 | J | 46.4k1/4W Metal Oxide | AB |
| R161A | 9NK0311097000 | J | 261k 1/4W Metal Oxide | AB |
| R161B | 9NK0311097000 | J | 261k 1/4W Metal Oxide | AB |
| R161C | 9NK0311097000 | J | 261k 1/4W Metal Oxide | AB |
| R163 | 9NK0143202200 | J | 2k 2W | AB |
| ⚠ R163A | 9NK0401420000 | J | 549k 1/4W Metal Oxide | AB |
| ⚠ R163B | 9NK0401420000 | J | 549k 1/4W Metal Oxide | AB |
| ⚠ R163C | 9NK0401420000 | J | 549k 1/4W Metal Oxide | AB |
| ⚠ R164A | 9NK0401192002 | J | 133K 1/4W Metal Oxide | AB |
| ⚠ R164B | 9NK0401192002 | J | 133K 1/4W Metal Oxide | AB |
| ⚠ R164C | 9NK0401348004 | J | 137K 1/4W Metal Oxide | AB |
| ⚠ R164D | 9NK0401348004 | J | 137K 1/4W Metal Oxide | AB |
| R170 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R171 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |
| R201 | 9NK0313150000 | J | 15 1/4W Metal Oxide | AB |
| R202 | 9NK0341026100 | J | 100 1/8W Metal Oxide | AB |
| R203 | 9NK0343102100 | J | 1k 1/8W Metal Oxide | AB |
| R204 | 9NK0341285100 | J | 1.82k1/8W Metal Oxide | AB |
| R205 | 9NK0341137100 | J | 1.1k 1/8W Metal Oxide | AB |
| R206 | 9NK0341039100 | J | 680 1/8W Metal Oxide | AB |
| R207 | 9NK0343104100 | J | 100k 1/8W Metal Oxide | AB |
| R208 | 9NK0341036100 | J | 470 1/8W Metal Oxide | AB |
| R209 | 9NK0311026000 | J | 100 1/4W Metal Oxide | AB |
| R210 | 9NK0341041100 | J | 1k 1/8W Metal Oxide | AB |
| R211 | 9NK0341012100 | J | 10 1/8W Metal Oxide | AB |
| R212 | 9NK0341059100 | J | 10k 1/8W Metal Oxide | AB |
| R213 | 9NK0341041100 | J | 1k 1/8W Metal Oxide | AB |
| R214 | 9NK0311026000 | J | 100 1/4W Metal Oxide | AB |
| R215 | 9NK0341041100 | J | 1k 1/8W Metal Oxide | AB |
| R216 | 9NK0341041100 | J | 1k 1/8W Metal Oxide | AB |
| R217 | 9NK0311026000 | J | 100 1/4W Metal Oxide | AB |
| R218 | 9NK0393182600 | J | 1.8K 3/4W Metal Oxide | AB |
| R231 | 9NK0313330000 | J | 33 1/4W Metal Oxide | AB |
| R232 | 9NK0393182600 | J | 1.8K 3/4W Metal Oxide | AB |
| R233 | 9NK0313330000 | J | 33 1/4W Metal Oxide | AB |
| R234 | 9NK0393182600 | J | 1.8K 3/4W Metal Oxide | AB |
| R235 | 9NK0313330000 | J | 33 1/4W Metal Oxide | AB |
| R237 | 9NK0313330000 | J | 33 1/4W Metal Oxide | AB |
| R238 | 9NK0341030100 | J | 200 1/8W Metal Oxide | AB |
| R239 | 9NK0341041100 | J | 1k 1/8W Metal Oxide | AB |
| R240 | 9NK0341026100 | J | 100 1/8W Metal Oxide | AB |
| R241 | 9NK0341398100 | J | 32.4k1/8W Metal Oxide | AB |
| R242 | 9NK0341157100 | J | 110k 1/8W Metal Oxide | AB |
| R243 | 9NK0341415100 | J | 11.8k1/8W Metal Oxide | AB |

## 9NK5600204232
## POWER UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R244 | 9NK0341585100 | J | 64.9k1/8W Metal Oxide | AB |
| R247 | 9NK0341079100 | J | 51k 1/8W Metal Oxide | AB |
| R248 | 9NK0341318100 | J | 30.1k1/8W Metal Oxide | AB |
| R249A | 9NK0623004100 | J | 0.015 | AB |
| R249B | 9NK0623004100 | J | 0.015 | AB |
| R249C | 9NK0623004100 | J | 0.015 | AB |
| R250 | 9NK0341108100 | J | 1M 1/8W Metal Oxide | AB |
| R261 | 9NK0341059100 | J | 10k 1/8W Metal Oxide | AB |
| R265 | 9NK0341059100 | J | 10k 1/8W Metal Oxide | AB |
| R280 | 9NK0341041100 | J | 1k 1/8W Metal Oxide | AB |
| R291 | 9NK0341036100 | J | 470 1/8W Metal Oxide | AB |
| ⚠ NTC151 | 9NK0911000116 | J | 10 (L) | AE |
| ⚠ NTC152 | 9NK0911000116 | J | 10 (L) | AE |
| VR201 | 9NK0606211002 | J | 3k 3/10W | AD |

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| CN151 | 9NK3071121734 | J | Connector, 5Pin | AC |
| CN152 | 9NK3670335901 | J | Wire With Housing | AG |
| CN153 | 9NK3670335901 | J | Wire With Housing | AG |
| ⚠ F151 | 9NK0805340702 | J | Fuse, 4A 250V | AD |
| HS101 | 9NK3343203701 | J | Heat Sink for Q151, D152, D153 | AM |
| HS102 | 9NK3343203701 | J | Heat Sink for CR151, D154 | AM |
| HS131 | 9NK3341072101 | J | Heat Sink for IC131 | AE |
| HS231 | 9NK3343203800 | J | Heat Sink for D232, D233, D334 | AK |
| HS232 | 9NK3343902300 | J | Heat Sink for IC231 | AC |
| JP151 | 9NK3071323734 | J | Connector, 2Pin | AB |
| RL151 | 9NK0720700107 | J | Relay | AL |
| ⚠ THM1 | 9NK0930200002 | J | TMST | AN |
|  | 9NK3100300600 | J | ScreW M3*0.5*6 x2 | AB |
|  | 9NK3100301000 | J | ScreW M3*0.5*10 x3 | AB |
|  | 9NK3100301200 | J | ScreW M3*0.5*12 x4 | AB |
|  | 9NK3240170300 | J | Insulator x 2 | AC |
|  | 9NK3240173300 | J | Insulator | AB |
|  | 9NK3240180000 | J | Insulator Silicon | AB |
|  | 9NK3240191000 | J | Insulator Bushing |  |

## 9NK5600204234
## LVPS CONTROL UNIT

### INTEGRATED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| ⚠ IC254 | 9NK2510376031 | J | ISL6526 | AQ |
| U280 | 9NK2520004100 | J | LM393DR2G | AC |

### TRANSISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| Q201 | 9NKM522000405 | J | MMBT3904L | AB |
| Q202 | 9NKM522000405 | J | MMBT3904L | AB |
| Q280 | 9NKM522000405 | J | MMBT3904L | AB |
| Q281 | 9NKN522000205 | J | MMBT3906L | AB |

### DIODE

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| SKD1 | 9NKI820330323 | J | SS14 | AC |

### CAPACITORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C251 | 9NK1512445100 | J | 1000P 50V Ceramic | AB |
| C252 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C254 | 9NK15A7691100 | J | 10 10V Ceramic | AB |
| C255 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C256 | 9NK1511518100 | J | 33p 50V Ceramic | AB |
| C257 | 9NK1512451100 | J | 5600p 50V Ceramic | AB |
| C259 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C262 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C280 | 9NK1511454100 | J | 0.01 50V Ceramic | AB |
| C281 | 9NK1511454100 | J | 0.01 50V Ceramic | AB |
| C284 | 9NK1511447100 | J | 3300p 50V Ceramic | AB |
| C285 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |

### RESISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R251 | 9NK0341245100 | J | 9.53k1/8W Metal Oxide | AB |
| R252 | 9NK0341409100 | J | 6.49k1/8W Metal Oxide | AB |
| R253 | 9NK0341571100 | J | 1.07k1/8W Metal Oxide | AB |
| R254 | 9NK0341045100 | J | 2.26k1/8W Metal Oxide | AB |
| R256 | 9NK0341036100 | J | 470 1/8W Metal Oxide | AB |
| R257 | 9NK0341041100 | J | 1k 1/8W Metal Oxide | AB |
| R258 | 9NK0341059100 | J | 10k 1/8W Metal Oxide | AB |
| R259 | 9NK0341202100 | J | 4.75k1/8W Metal Oxide | AB |
| R260 | 9NK0341202100 | J | 4.75k1/8W Metal Oxide | AB |
| R263 | 9NK0341202100 | J | 4.75k1/8W Metal Oxide | AB |
| R281 | 9NK0341059100 | J | 10k 1/8W Metal Oxide | AB |
| R282 | 9NK0341202100 | J | 4.75k1/8W Metal Oxide | AB |
| R283 | 9NK0341054100 | J | 6.2k 1/8W Metal Oxide | AB |
| R284 | 9NK0341202100 | J | 4.75k1/8W Metal Oxide | AB |
| R285 | 9NK0341202100 | J | 4.75k1/8W Metal Oxide | AB |
| R287 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |
| R288 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |
| R289 | 9NK0341092100 | J | 150k 1/8W Metal Oxide | AB |
| R290 | 9NK0341202100 | J | 4.75k1/8W Metal Oxide | AB |
| R292 | 9NK0341203100 | J | 5.62k1/8W Metal Oxide | AB |
| R293 | 9NK0341202100 | J | 4.75k1/8W Metal Oxide | AB |
| R294 | 9NK0341466100 | J | 8.66k1/8W Metal Oxide | AB |

### MISCELLANEOUS PART

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| CN252 | 9NK3071870034 | J | Connector, 14Pin | AE |

## 9NK5600204245
## P.F.C CONTROL UNIT

### INTEGRATED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| ⚠ IC321 | 9NK2510252114 | J | UCC3818N | AN |
| IC322 | 9NK2540059239 | J | TC428CPA | AP |
| IC323 | 9NK2540059239 | J | TC428CPA | AP |
| IC325 | 9NK2510063010 | J | NE556 | AE |
| IC326 | 9NK2510063010 | J | NE556 | AE |
| IC327 | 9NK2500004115 | J | 431UA | AF |

### TRANSISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| Q321 | 9NKM522000505 | J | MMBT4401L | AB |
| Q322 | 9NKN522000405 | J | MMBT4403L | AB |
| Q357 | 9NKM522000505 | J | MMBT4401L | AB |

### DIODE

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D321 | 9NKK810750207 | J | BAS32L/D | AB |
| D322 | 9NKK810750207 | J | BAS32L/D | AB |
| D323 | 9NKK810750207 | J | BAS32L/D | AB |
| D324 | 9NKK810750207 | J | BAS32L/D | AB |
| D325 | 9NKK810750207 | J | BAS32L/D | AB |
| D326 | 9NKK810750207 | J | BAS32L/D | AB |
| D327 | 9NKK810750207 | J | BAS32L/D | AB |
| D328 | 9NKK810750207 | J | BAS32L/D | AB |
| D329 | 9NKK810750207 | J | BAS32L/D | AB |
| D331 | 9NKK810750207 | J | BAS32L/D | AB |
| D332 | 9NKK810750207 | J | BAS32L/D | AB |
| D333 | 9NKK810750207 | J | BAS32L/D | AB |
| D334 | 9NKK810750207 | J | BAS32L/D | AB |
| D336 | 9NKK810750207 | J | BAS32L/D | AB |
| ZD323 | 9NKJ812640336 | J | RLZ 15C | AB |
| ZD324 | 9NKJ812640336 | J | RLZ 15C | AB |

### CAPACITORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C321 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C322 | 9NK1511538100 | J | 220p 50V Ceramic | AB |
| C323 | 9NK1552467200 | J | 1 25V Ceramic | AB |
| C324 | 9NK1552467200 | J | 1 25V Ceramic | AB |
| C325 | 9NK1517667200 | J | 1 50V Ceramic | AB |
| C326 | 9NK1517667200 | J | 1 50V Ceramic | AB |
| C327 | 9NK1512456100 | J | 0.022 50V Ceramic | AB |

# 9NK5600204245

## P.F.C CONTROL UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C328 | 9NK1557667100 | J | 1 25V Ceramic | AB |
| C329 | 9NK1511538100 | J | 220p 50V Ceramic | AB |
| C330 | 9NK1557667100 | J | 1 25V Ceramic | AB |
| C331 | 9NK1511534100 | J | 150p 50V Ceramic | AB |
| C332 | 9NK1517667200 | J | 1 50V Ceramic | AB |
| C333 | 9NK1517667200 | J | 1 50V Ceramic | AB |
| C334 | 9NK1511538100 | J | 220p 50V Ceramic | AB |
| C335 | 9NK1512446100 | J | 2200p 50V Ceramic | AB |
| C336 | 9NK1511542100 | J | 470p 50V Ceramic | AB |
| C337 | 9NK1557667100 | J | 1 25V Ceramic | AB |
| C338 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C339 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |
| C340 | 9NK1512457200 | J | 0.047 50V Ceramic | AB |
| C345 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C346 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C347 | 9NK1512454100 | J | 0.01 50V Ceramic | AB |
| C348 | 9NK1512456200 | J | 0.022 50V Ceramic | AB |
| C349 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C350 | 9NK1517664200 | J | 0.47 50V Ceramic | AB |
| C351 | 9NK1552467200 | J | 1 25V Ceramic | AB |
| C352 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C353 | 9NK1517667200 | J | 1 50V Ceramic | AB |
| C354 | 9NK1557667100 | J | 1 25V Ceramic | AB |
| C355 | 9NK1517667200 | J | 1 50V Ceramic | AB |
| C356 | 9NK1517667200 | J | 1 50V Ceramic | AB |
| C357 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C358 | 9NK1512458100 | J | 0.1 50V Ceramic | AB |
| C359 | 9NK1517667200 | J | 1 50V Ceramic | AB |

### RESISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R321 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |
| R322 | 9NK0313202000 | J | 2k 1/4W Metal Oxide | AB |
| R323 | 9NK0311287000 | J | 5.11k 1/4W Metal Oxide | AB |
| R324 | 9NK0343393100 | J | 39k 1/8W Metal Oxide | AB |
| R326 | 9NK0343103100 | J | 10k 1/8W Metal Oxide | AB |
| R327 | 9NK0343100100 | J | 10 1/8W Metal Oxide | AB |
| R328 | 9NK0343100100 | J | 10 1/8W Metal Oxide | AB |
| R329 | 9NK0343100100 | J | 10 1/8W Metal Oxide | AB |
| R330 | 9NK0343101100 | J | 100 1/8W Metal Oxide | AB |
| R331 | 9NK0343103100 | J | 10k 1/8W Metal Oxide | AB |
| R332 | 9NK0343153100 | J | 15k 1/8W Metal Oxide | AB |
| R333 | 9NK0341299100 | J | 158k 1/8W Metal Oxide | AB |
| R334 | 9NK0341185100 | J | 7.5k 1/8W Metal Oxide | AB |
| R335 | 9NK0341435100 | J | 12.4k1/8W Metal Oxide | AB |
| R336 | 9NK0341676100 | J | 309k 1/8W Metal Oxide | AB |
| R337 | 9NK0343822100 | J | 8.2k 1/8W Metal Oxide | AB |
| R338 | 9NK0313104000 | J | 100k 1/4W Metal Oxide | AB |
| R339 | 9NK0343182100 | J | 1.8k 1/8W Metal Oxide | AB |
| R340 | 9NK0341338100 | J | 18.2k1/8W Metal Oxide | AB |
| R346 | 9NK0343434100 | J | 430k 1/8W Metal Oxide | AB |
| R347 | 9NK0343684100 | J | 680k 1/8W Metal Oxide | AB |
| R348 | 9NK0341455100 | J | 115k 1/8W Metal Oxide | AB |
| R349 | 9NK0341066100 | J | 20k 1/8W Metal Oxide | AB |
| R350 | 9NK0341092100 | J | 150k 1/8W Metal Oxide | AB |
| R351 | 9NK0341155100 | J | 68.1k1/8W Metal Oxide | AB |
| R352 | 9NK0341457100 | J | 78.7k1/8W Metal Oxide | AB |
| R353 | 9NK0343225100 | J | 2.2M 1/8W Metal Oxide | AB |
| R354 | 9NK0343225100 | J | 2.2M 1/8W Metal Oxide | AB |
| R355 | 9NK0343103100 | J | 10k 1/8W Metal Oxide | AB |
| R356 | 9NK0343104100 | J | 100k 1/8W Metal Oxide | AB |
| R357 | 9NK0341196100 | J | 22.1k1/8W Metal Oxide | AB |
| R358 | 9NK0341059100 | J | 10k 1/8W Metal Oxide | AB |
| R359 | 9NK0343362100 | J | 3.6k 1/8W Metal Oxide | AB |
| R360 | 9NK0343362100 | J | 3.6k 1/8W Metal Oxide | AB |
| R361 | 9NK0343122100 | J | 1.2k 1/8W Metal Oxide | AB |
| R362 | 9NK0343362100 | J | 3.6k 1/8W Metal Oxide | AB |
| R363 | 9NK0343752100 | J | 7.5k 1/8W Metal Oxide | AB |
| R364 | 9NK0343122100 | J | 1.2k 1/8W Metal Oxide | AB |

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
|  | 9NK3420005401 | J | Clip | AB |
|  | 9NK3421267000 | J | Braket | AC |
|  | 9NK3071780934 | J | pin Plug | AC |
|  | 9NK3422018000 | J | Spacer Support | AB |

# 9NK5600204233

## FILTER UNIT

### DIODES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D301 | 9NKI830870023 | J | SS26 | AF |
| ⚠ TVR301 | 9NK0923010145 | J | Varistor | AB |

### COILS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| ⚠ FL301 | 9NK2817219780 | J | Line Filter 8mH | AP |
| ⚠ FL302 | 9NK2817219780 | J | Line Filter 8mH | AP |
| ⚠ FL303 | 9NK2817223780 | J | Line Filter 350µH | AG |

### CAPACITORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C301 | 9NKQ141001403 | J | 10 25V AB |  |
| ⚠ CX301 | 9NK1604317239 | J | 1 275VAC | AF |
| ⚠ CX302 | 9NK1604317239 | J | 1 275VAC | AF |
| ⚠ CX303 | 9NK1604313250 | J | 0.22 275VAC | AC |
| ⚠ CY301 | 9NK1101345027 | J | 1000p 250VAC | AB |
| ⚠ CY302 | 9NK1101345027 | J | 1000p 250VAC | AB |
| ⚠ CY303 | 9NK1101346027 | J | 2200p 250VAC |  |
| ⚠ CY304 | 9NK1101346027 | J | 2200p 250VAC |  |

### RESISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| ⚠ R301A | 9NK0401101000 | J | 301k 1/4W Metal Oxide | AB |
| ⚠ R301B | 9NK0401101000 | J | 301k 1/4W Metal Oxide | AB |
| ⚠ R301C | 9NK0401101000 | J | 301k 1/4W Metal Oxide | AB |
| R302 | 9NK0311024000 | J | 68 1/4W Metal Oxide | AB |
| R303 | 9NK0311059000 | J | 10k 1/4W Metal Oxide | AB |

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| CN301 | 9NK3070842034 | J | Connector, 5pin |  |
| CN302 | 9NK3071173034 | J | Connector, 3pin | AB |
| CN303 | 9NK3071121734 | J | Connector, 5pin | AC |
| CN304 | 9NK3070168134 | J | Plug, 2pin |  |
| ⚠ F301 | 9NK0803341202 | J | Fuse 8A/250V | AD |
| FG_F | 9NK3640990001 | J | Wire With Terminal | AC |
| JP301 | 9NK3071323734 | J | Connector 2pin | AB |
| ⚠ K301 | 9NK0725030115 | J | Relay | AV |

## 9NK5600204261

## PC I/F UNIT

### INTEGRATED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| IC8001 | 9NK001-15161 | J | Reset-R3112N151A | AN |
| IC8002 | 9NK001-15166 | J | Regulator, PQ070XZ01 | AR |
| IC8003 | 9NK001-10061 | J | CPU(SH3), HD6417709SBP133V | BV |
| IC8004 | 9NK001-11058 | J | EEPROM, AT24C128N | AY |
| IC8005 | 9NK001-15162 | J | RESET-R3112N291A | AN |
| IC8006 | 9NK001-12128 | J | CMOS, 74LVX125 | AL |
| IC8007 | 9NK001-11059 | J | FLASH Memory, LH28F640BFE | BS |
| IC8008 | 9NK001-11064 | J | SDRAM, HY57V641620HG | BF |
| IC8009 | 9NK001-11064 | J | SDRAM, HY57V641620HG | BF |
| IC8010 | 9NK001-15158 | J | Video Decoder, UPD64011B | BS |
| IC8011 | 9NK001-15157 | J | Regulator, LM1117MPX | AS |
| IC8012 | 9NK001-12126 | J | CMOS, 74VHC153MTC | AM |
| IC8013 | 9NK001-11060 | J | SDRAM, MSM56V16160F | AY |
| IC8014 | 9NK001-15075 | J | LPF, SM5301AS | AZ |
| IC8015 | 9NK001-15160 | J | Compareter, LM319MX | AS |
| IC8016 | 9NK001-12127 | J | CMOS, 74LCX157MTC | AM |
| IC8017 | 9NK001-15170 | J | AMp ADC PLL, AD9888 | BY |
| IC8018 | 9NK001-15164 | J | Regulator, PQ050DZ01Z | AN |
| IC8019 | 9NK001-15165 | J | Regulator, PQ033DZ01Z | AN |
| IC8020 | 9NK001-15168 | J | Panel Link Receiver, Sii169 | BQ |
| IC8021 | 9NK001-12125 | J | CMOS, BU4053B | AM |
| IC8022 | 9NK001-11056 | J | EEPROM, 24LC02B | AS |
| IC8023 | 9NK001-11057 | J | EEPROM, 24LC01B | AQ |
| IC8024 | 9NK001-15152 | J | Potentiometer, BU9831F | AX |
| IC8025 | 9NK001-14008 | J | CVIC2, MB87M1370TB | |
| IC8026 | 9NK001-11063 | J | SDRAM, HY57V643220CTP | BD |
| IC8027 | 9NK001-11063 | J | SDRAM, HY57V643220CTP | BD |
| IC8028 | 9NK001-11063 | J | SDRAM, HY57V643220CTP | BD |
| IC8029 | 9NK001-11063 | J | SDRAM, HY57V643220CTP | BD |
| IC8030 | 9NK001-15167 | J | Regulator, PQ070XH02Z | AR |
| IC8032 | 9NK001-14009 | J | GA5, RH-IXA555WJZZQ | BT |
| IC8033 | 9NK001-11067 | J | DDRAM, HY5DU283222AQP | BM |
| IC8036 | 9NK001-15159 | J | Regulator, LP2995 | AT |

### TRANSISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| Q8002 | 9NK001-20012 | J | 2SA1037AKQ | AE |
| Q8005 | 9NK001-20012 | J | 2SA1037AKQ | AE |
| Q8006 | 9NK001-20011 | J | 2SC2412KQ | AE |
| Q8007 | 9NK001-20011 | J | 2SC2412KQ | AE |
| Q8008 | 9NK001-20012 | J | 2SA1037AKQ | AE |
| Q8009 | 9NK001-20012 | J | 2SA1037AKQ | AE |
| Q8010 | 9NK001-20011 | J | 2SC2412KQ | AE |
| Q8011 | 9NK001-20011 | J | 2SC2412KQ | AE |
| Q8012 | 9NK001-20045 | J | HN1B04FU | AG |
| Q8013 | 9NK001-20011 | J | 2SC2412KQ | AE |
| Q8014 | 9NK001-20011 | J | 2SC2412KQ | AE |
| Q8015 | 9NK001-20036 | J | FET, NDC7002N | AM |
| Q8016 | 9NK001-20046 | J | DTC143TE | AG |
| Q8017 | 9NK001-20046 | J | DTC143TE | AG |
| Q8018 | 9NK001-20046 | J | DTC143TE | AG |
| Q8019 | 9NK001-20046 | J | DTC143TE | AG |

### DIODES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D8001 | 9NK001-30034 | J | Shotky Diode RB520S | AE |
| D8002 | 9NK001-30026 | J | MA3S137 | AF |
| D8003 | 9NK001-30026 | J | MA3S137 | AF |
| D8004 | 9NK001-30034 | J | Shotky Diode RB520S | AE |
| D8005 | 9NK001-30034 | J | Shotky Diode RB520S | AE |
| D8006 | 9NK001-30026 | J | MA3S137 | AF |
| D8007 | 9NK001-30026 | J | MA3S137 | AF |
| D8008 | 9NK001-30026 | J | MA3S137 | AF |
| D8009 | 9NK001-30026 | J | MA3S137 | AF |
| D8010 | 9NK001-30026 | J | MA3S137 | AF |
| D8011 | 9NK001-30026 | J | MA3S137 | AF |
| D8012 | 9NK001-30026 | J | MA3S137 | AF |
| D8013 | 9NK001-30026 | J | MA3S137 | AF |
| D8014 | 9NK001-30034 | J | Shotky Diode RB520S | AE |
| D8015 | 9NK001-30034 | J | Shotky Diode RB520S | AE |
| D8016 | 9NK001-30035 | J | Zener Diode 12V | AE |
| D8017 | 9NK001-30035 | J | Zener Diode 12V | AE |
| D8018 | 9NK001-30035 | J | Zener Diode 12V | AE |
| D8019 | 9NK001-30035 | J | Zener Diode 12V | AE |
| D8020 | 9NK001-30034 | J | Shotky Diode RB520S | AE |
| D8101 | 9NK001-30035 | J | Zener Diode 12V | AE |

### PACKAGED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| X8001 | 9NK001-80052 | J | Crystal, 32.768kHz | AQ |
| X8002 | 9NK001-80038 | J | Crystal, 16.588MHz | AS |
| X8003 | 9NK001-80034 | J | Crystal, 24.576MHz | AS |
| X8004 | 9NK001-80053 | J | Crystal Oscillator, 65.000MHz | AY |
| X8005 | 9NK001-80027 | J | Crystal Oscillator, 25.000MHz | AY |

### COILS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| L8001 | 9NK001-81082 | J | Peaking, 3.3µH | AG |
| L8002 | 9NK001-81096 | J | Peaking, 1µH | AF |
| L8003 | 9NK001-81093 | J | Peaking, 22µH | AF |
| L8004 | 9NK001-81091 | J | Peaking, 10µH | AF |
| L8006 | 9NK001-81093 | J | Peaking, 22µH | AF |
| L8007 | 9NK001-81093 | J | Peaking, 22µH | AF |
| L8008 | 9NK001-81095 | J | Peaking, 47µH | AF |
| L8009 | 9NK001-81094 | J | Peaking, 33µH | AF |
| L8010 | 9NK001-81091 | J | Peaking, 10µH | AF |
| L8011 | 9NK001-81092 | J | Peaking, 15µH | AG |
| L8012 | 9NK001-81093 | J | Peaking, 22µH | AF |
| L8013 | 9NK001-81093 | J | Peaking, 22µH | AF |
| L8014 | 9NK001-81093 | J | Peaking, 22µH | AF |
| L8015 | 9NK001-81093 | J | Peaking, 22µH | AF |
| L8016 | 9NK001-81082 | J | Peaking, 3.3µH | AG |
| L8017 | 9NK001-81082 | J | Peaking, 3.3µH | AG |
| L8020 | 9NK001-81083 | J | Coil | AW |
| L8021 | 9NK001-81083 | J | Coil | AW |
| L8022 | 9NK001-81083 | J | Coil | AW |
| L8023 | 9NK001-81083 | J | Coil | AW |

### CAPACITORS

| Ref. No. | Part No. | ★ | Description | | | Code |
|---|---|---|---|---|---|---|
| C8001 | 9NK001-42096 | J | 0.01 | 50V | Ceramic | AC |
| C8004 | 9NK001-40170 | J | 150 | 4V | NP | AK |
| C8005 | 9NK001-40166 | J | 100 | 6.3V | Electrolytic | AF |
| C8006 | 9NK001-42162 | J | 0.33 | 10V | Ceramic | AF |
| C8007 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8008 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8009 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8010 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8011 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8012 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8013 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8014 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8015 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8016 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8017 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8018 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8019 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8020 | 9NK001-42104 | J | 470p | 50V | Ceramic | AC |
| C8021 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8022 | 9NK001-42104 | J | 470p | 50V | Ceramic | AC |
| C8023 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8024 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8025 | 9NK001-42115 | J | 10p | 50V | Ceramic | AD |
| C8026 | 9NK001-42115 | J | 10p | 50V | Ceramic | AD |
| C8027 | 9NK001-42096 | J | 0.01 | 50V | Ceramic | AC |
| C8028 | 9NK001-42103 | J | 15p | 50V | Ceramic | AC |
| C8029 | 9NK001-42103 | J | 15p | 50V | Ceramic | AC |
| C8030 | 9NK001-42160 | J | 10 | 6.3V | Ceramic | AD |
| C8031 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8032 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8033 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8036 | 9NK001-42099 | J | 100p | 50V | Ceramic | AC |
| C8037 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8038 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8039 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8040 | 9NK001-42160 | J | 10 | 6.3V | Ceramic | AD |
| C8041 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8042 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |

# 9NK5600204261

## PC I/F UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | | | Code |
|---|---|---|---|---|---|---|
| C8043 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8044 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8045 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8046 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8047 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8048 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8049 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8050 | 9NK001-40167 | J | 10 | 16V | Electrolytic | AF |
| C8051 | 9NK001-40168 | J | 47 | 6.3V | Electrolytic | AF |
| C8052 | 9NK001-40167 | J | 10 | 16V | Electrolytic | AF |
| C8053 | 9NK001-40168 | J | 47 | 6.3V | Electrolytic | AF |
| C8054 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8055 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8056 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8057 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8058 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8059 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8060 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8063 | 9NK001-42138 | J | 220p | 50V | Ceramic | AD |
| C8065 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8066 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8067 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8068 | 9NK001-42123 | J | 330p | 50V | Ceramic | AD |
| C8069 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8070 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8071 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8072 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8074 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8075 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8077 | 9NK001-40167 | J | 10 | 16V | Electrolytic | AF |
| C8078 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8079 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8080 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8081 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8082 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8084 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8085 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8086 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8087 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8088 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8089 | 9NK001-40167 | J | 10 | 16V | Electrolytic | AF |
| C8090 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8091 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8092 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8093 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8094 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8095 | 9NK001-42096 | J | 0.01 | 50V | Ceramic | AC |
| C8096 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8097 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8098 | 9NK001-40167 | J | 10 | 16V | Electrolytic | AF |
| C8099 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8100 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8101 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8102 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8103 | 9NK001-40171 | J | 1 | 50V | Electrolyt(NP) | AH |
| C8104 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8105 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8107 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8108 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8109 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8110 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8111 | 9NK001-42099 | J | 100p | 50V | Ceramic | AC |
| C8112 | 9NK001-42147 | J | 150p | 50V | Ceramic | AC |
| C8113 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8114 | 9NK001-40168 | J | 47 | 6.3V | Electrolytic | AF |
| C8115 | 9NK001-42189 | J | 27p | 50V | Ceramic | AC |
| C8116 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8117 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8118 | 9NK001-42189 | J | 27p | 50V | Ceramic | AC |
| C8119 | 9NK001-42115 | J | 10p | 50V | Ceramic | AD |
| C8120 | 9NK001-42115 | J | 10p | 50V | Ceramic | AD |
| C8121 | 9NK001-42115 | J | 10p | 50V | Ceramic | AD |
| C8122 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8123 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8124 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8125 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8126 | 9NK001-42115 | J | 10p | 50V | Ceramic | AD |
| C8127 | 9NK001-40168 | J | 47 | 6.3V | Electrolytic | AF |
| C8130 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8131 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8132 | 9NK001-40165 | J | 22 | 6.3V | Electrolytic | AF |
| C8133 | 9NK001-40163 | J | 220 | 6.3V | Electrolytic | AF |
| C8134 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8135 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8136 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8137 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8138 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8139 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8140 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8141 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8142 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8143 | 9NK001-42113 | J | 4.7 | 10V | Ceramic | AD |
| C8147 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8148 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8149 | 9NK001-40169 | J | 0.47 | 50V | Elect.(NP) | AH |
| C8150 | 9NK001-42108 | J | 5p | 50V | Ceramic | AC |
| C8151 | 9NK001-42113 | J | 4.7 | 10V | Ceramic | AD |
| C8152 | 9NK001-42130 | J | 2200p | 25V | Ceramic | AD |
| C8153 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8155 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8156 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8157 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8158 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8159 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8160 | 9NK001-42161 | J | 0.047 | 25V | Ceramic | AD |
| C8161 | 9NK001-42161 | J | 0.047 | 25V | Ceramic | AD |
| C8162 | 9NK001-42161 | J | 0.047 | 25V | Ceramic | AD |
| C8163 | 9NK001-42163 | J | 1000p | 25V | Ceramic | AD |
| C8164 | 9NK001-42161 | J | 0.047 | 25V | Ceramic | AD |
| C8165 | 9NK001-42161 | J | 0.047 | 25V | Ceramic | AD |
| C8166 | 9NK001-42161 | J | 0.047 | 25V | Ceramic | AD |
| C8167 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8168 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8169 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8170 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8171 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8172 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8173 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8174 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8175 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8176 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8177 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8178 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8179 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8180 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8181 | 9NK001-40168 | J | 47 | 6.3V | Electrolytic | AF |
| C8182 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8183 | 9NK001-42158 | J | 3900p | 16V | Film | AG |
| C8184 | 9NK001-42159 | J | 0.039 | 16V | Film | AH |
| C8185 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8186 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8187 | 9NK001-40165 | J | 22 | 6.3V | Electrolytic | AF |
| C8188 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8189 | 9NK001-40168 | J | 47 | 6.3V | Electrolytic | AF |
| C8190 | 9NK001-40165 | J | 22 | 6.3V | Electrolytic | AF |
| C8191 | 9NK001-42162 | J | 0.33 | 10V | Ceramic | AF |
| C8192 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8193 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8194 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8195 | 9NK001-42157 | J | 0.1 | 25V | Ceramic | AD |
| C8198 | 9NK001-40168 | J | 47 | 6.3V | Electrolytic | AF |
| C8199 | 9NK001-42099 | J | 100p | 50V | Ceramic | AC |
| C8200 | 9NK001-42099 | J | 100p | 50V | Ceramic | AC |
| C8201 | 9NK001-42099 | J | 100p | 50V | Ceramic | AC |
| C8202 | 9NK001-42099 | J | 100p | 50V | Ceramic | AC |
| C8203 | 9NK001-40165 | J | 22 | 6.3V | Electrolytic | AF |
| C8204 | 9NK001-42156 | J | 1 | 10V | Ceramic | AD |
| C8205 | 9NK001-42099 | J | 100p | 50V | Ceramic | AC |

## 9NK5600204233

## PC I/F UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C8206 | 9NK001-42160 | J | 10 6.3V Ceramic | AD |
| C8207 | 9NK001-42122 | J | 180p 50V Ceramic | AC |
| C8208 | 9NK001-42122 | J | 180p 50V Ceramic | AC |
| C8209 | 9NK001-42122 | J | 180p 50V Ceramic | AC |
| C8210 | 9NK001-42160 | J | 10 6.3V Ceramic | AD |
| C8211 | 9NK001-42123 | J | 330p 50V Ceramic | AD |
| C8212 | 9NK001-42123 | J | 330p 50V Ceramic | AD |
| C8213 | 9NK001-42123 | J | 330p 50V Ceramic | AD |
| C8214 | 9NK001-42123 | J | 330p 50V Ceramic | AD |
| C8215 | 9NK001-42123 | J | 330p 50V Ceramic | AD |
| C8216 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8217 | 9NK001-42113 | J | 4.7 10V Ceramic | AD |
| C8218 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8220 | 9NK001-40166 | J | 100 6.3V Electrolytic | AF |
| C8221 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8222 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8223 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8224 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8225 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8226 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8227 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8228 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8229 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8230 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8231 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8232 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8233 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8234 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8235 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8236 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8237 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8238 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8239 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8240 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8241 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8242 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8243 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8244 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8245 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8246 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8247 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8248 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8249 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8250 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8251 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8252 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8253 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8254 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8255 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8256 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8257 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8258 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8259 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8260 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8261 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8262 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8263 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8264 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8265 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8266 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8267 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8268 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8269 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8270 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8271 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8272 | 9NK001-40166 | J | 100 6.3V Electrolytic | AF |
| C8273 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8275 | 9NK001-42160 | J | 10 6.3V Ceramic | AD |
| C8277 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8278 | 9NK001-40166 | J | 100 6.3V Electrolytic | AF |
| C8279 | 9NK001-40170 | J | 150 4V NP | AK |
| C8281 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8282 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8283 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8284 | 9NK001-40168 | J | 47 6.3V Electrolytic | AF |
| C8285 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8286 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8287 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8288 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8289 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8290 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8291 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8292 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8293 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8294 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8295 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8296 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8297 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8298 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8299 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8300 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8301 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8302 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8303 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8304 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8305 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8306 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8307 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8308 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8309 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8310 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8311 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8312 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8313 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8314 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8315 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8316 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8317 | 9NK001-42187 | J | 4.7 6.3V Ceramic | AD |
| C8318 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8320 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8323 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8324 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8325 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8326 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8327 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8328 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8329 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8330 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8331 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8332 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8333 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8334 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8335 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8336 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8337 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8338 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8339 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8340 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8342 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8343 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8345 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8346 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8347 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8348 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8349 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8350 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8351 | 9NK001-42188 | J | 10 6.3V Ceramic | AF |
| C8352 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8353 | 9NK001-42160 | J | 10 6.3V Ceramic | AD |
| C8354 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8355 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8356 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8357 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8358 | 9NK001-40168 | J | 47 6.3V Electrolytic | AF |
| C8359 | 9NK001-40165 | J | 22 6.3V Electrolytic | AF |
| C8362 | 9NK001-42156 | J | 1 10V Ceramic | AD |
| C8363 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8364 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |

## 9NK5600204233

## PC I/F UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C8365 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |
| C8366 | 9NK001-40168 | J | 47 6.3V Electrolytic | AF |
| C8367 | 9NK001-42157 | J | 0.1 25V Ceramic | AD |

### RESISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| FL8001 | 9NK001-50424 | J | 10 1/16W Metal Oxide | AC |
| FL8006 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| FL8007 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| FL8008 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| FL8009 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| FL8010 | 9NK001-51067 | J | 56 1/16W Array | AC |
| FL8011 | 9NK001-51067 | J | 56 1/16W Array | AC |
| FL8012 | 9NK001-51067 | J | 56 1/16W Array | AC |
| FL8013 | 9NK001-51067 | J | 56 1/16W Array | AC |
| FL8014 | 9NK001-51067 | J | 56 1/16W Array | AC |
| FL8015 | 9NK001-51067 | J | 56 1/16W Array | AC |
| FL8016 | 9NK001-51067 | J | 56 1/16W Array | AC |
| FL8017 | 9NK001-51067 | J | 56 1/16W Array | AC |
| R8001 | 9NK001-50406 | J | 910 1/16W Metal Oxide | AC |
| R8002 | 9NK001-50423 | J | 2.15k1/16W Metal Oxide | AC |
| R8003 | 9NK001-51064 | J | 10k 1/16W Array | AF |
| R8004 | 9NK001-51064 | J | 10k 1/16W Array | AF |
| R8005 | 9NK001-50433 | J | 2.2k 1/16W Metal Oxide | AC |
| R8006 | 9NK001-51064 | J | 10k 1/16W Array | AF |
| R8007 | 9NK001-51064 | J | 10k 1/16W Array | AF |
| R8009 | 9NK001-50435 | J | 150 1/16W Metal Oxide | AC |
| R8011 | 9NK001-50410 | J | 4.7k 1/16W Metal Oxide | AC |
| R8012 | 9NK001-51064 | J | 10k 1/16W Array | AF |
| R8013 | 9NK001-51066 | J | 6.8k 1/16W Array | AF |
| R8015 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8017 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8018 | 9NK001-50421 | J | 1.8k 1/16W Metal Oxide | AC |
| R8019 | 9NK001-51066 | J | 6.8k 1/16W Array | AF |
| R8021 | 9NK001-50424 | J | 10 1/16W Metal Oxide | AC |
| R8022 | 9NK001-50424 | J | 10 1/16W Metal Oxide | AC |
| R8023 | 9NK001-50424 | J | 10 1/16W Metal Oxide | AC |
| R8024 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8025 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8026 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8027 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8028 | 9NK001-50407 | J | 100 1/16W Metal Oxide | AC |
| R8029 | 9NK001-50407 | J | 100 1/16W Metal Oxide | AC |
| R8030 | 9NK001-50407 | J | 100 1/16W Metal Oxide | AC |
| R8031 | 9NK001-51065 | J | 22 1/16W Array | AF |
| R8034 | 9NK001-50430 | J | 10k 1/16W Metal Oxide | AC |
| R8035 | 9NK001-50430 | J | 10k 1/16W Metal Oxide | AC |
| R8036 | 9NK001-50430 | J | 10k 1/16W Metal Oxide | AC |
| R8037 | 9NK001-50430 | J | 10k 1/16W Metal Oxide | AC |
| R8038 | 9NK001-50429 | J | 390 1/16W Metal Oxide | AC |
| R8040 | 9NK001-50429 | J | 390 1/16W Metal Oxide | AC |
| R8043 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8045 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8048 | 9NK001-50407 | J | 100 1/16W Metal Oxide | AC |
| R8049 | 9NK001-50430 | J | 10k 1/16W Metal Oxide | AC |
| R8051 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8052 | 9NK001-50430 | J | 10k 1/16W Metal Oxide | AC |
| R8053 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8055 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8056 | 9NK001-50430 | J | 10k 1/16W Metal Oxide | AC |
| R8058 | 9NK001-50429 | J | 390 1/16W Metal Oxide | AC |
| R8059 | 9NK001-50429 | J | 390 1/16W Metal Oxide | AC |
| R8060 | 9NK001-50428 | J | 33 1/16W Metal Oxide | AC |
| R8061 | 9NK001-50428 | J | 33 1/16W Metal Oxide | AC |
| R8062 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8064 | 9NK001-50429 | J | 390 1/16W Metal Oxide | AC |
| R8065 | 9NK001-50429 | J | 390 1/16W Metal Oxide | AC |
| R8070 | 9NK001-50431 | J | 910 1/16W Metal Oxide | AC |
| R8071 | 9NK001-50431 | J | 910 1/16W Metal Oxide | AC |
| R8072 | 9NK001-50421 | J | 1.8k 1/16W Metal Oxide | AC |
| R8073 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8074 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8075 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8076 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8077 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8078 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8079 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8080 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8081 | 9NK001-51062 | J | 100 1/16W Array | AF |
| R8082 | 9NK001-50421 | J | 1.8k 1/16W Metal Oxide | AC |
| R8083 | 9NK001-50432 | J | 1.5k 1/16W Metal Oxide | AC |
| R8084 | 9NK001-50432 | J | 1.5k 1/16W Metal Oxide | AC |
| R8085 | 9NK001-50434 | J | 560 1/16W Metal Oxide | AC |
| R8086 | 9NK001-50434 | J | 560 1/16W Metal Oxide | AC |
| R8087 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8088 | 9NK001-50429 | J | 390 1/16W Metal Oxide | AC |
| R8089 | 9NK001-50429 | J | 390 1/16W Metal Oxide | AC |
| R8090 | 9NK001-50407 | J | 100 1/16W Metal Oxide | AC |
| R8091 | 9NK001-50436 | J | 150 1/16W Metal Oxide | AC |
| R8092 | 9NK001-50407 | J | 100 1/16W Metal Oxide | AC |
| R8093 | 9NK001-50437 | J | 47 1/16W Metal Oxide | AC |
| R8094 | 9NK001-50438 | J | 82 1/16W Metal Oxide | AC |
| R8095 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8096 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8097 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8098 | 9NK001-50439 | J | 470 1/16W Metal Oxide | AC |
| R8099 | 9NK001-50440 | J | 3.9k 1/16W Metal Oxide | AC |
| R8100 | 9NK001-50408 | J | 1k 1/16W Metal Oxide | AC |
| R8101 | 9NK001-50408 | J | 1k 1/16W Metal Oxide | AC |
| R8102 | 9NK001-50408 | J | 1k 1/16W Metal Oxide | AC |
| R8104 | 9NK001-50409 | J | 12k 1/16W Metal Oxide | AC |
| R8105 | 9NK001-50408 | J | 1k 1/16W Metal Oxide | AC |
| R8106 | 9NK001-50436 | J | 150 1/16W Metal Oxide | AC |
| R8107 | 9NK001-50439 | J | 470 1/16W Metal Oxide | AC |
| R8112 | 9NK001-50411 | J | 47 1/16W Metal Oxide | AC |
| R8114 | 9NK001-50412 | J | 33k 1/16W Metal Oxide | AC |
| R8115 | 9NK001-50413 | J | 1.1k 1/16W Metal Oxide | AC |
| R8116 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8119 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8120 | 9NK001-50414 | J | 820 1/16W Metal Oxide | AC |
| R8122 | 9NK001-50407 | J | 100 1/16W Metal Oxide | AC |
| R8123 | 9NK001-50415 | J | 75 1/10W Metal Oxide | AC |
| R8124 | 9NK001-50415 | J | 75 1/10W Metal Oxide | AC |
| R8125 | 9NK001-50415 | J | 75 1/10W Metal Oxide | AC |
| R8126 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8129 | 9NK001-50424 | J | 10 1/16W Metal Oxide | AC |
| R8133 | 9NK001-50416 | J | 22 1/16W Metal Oxide | AC |
| R8134 | 9NK001-50417 | J | 6.8 1/16W Metal Oxide | AC |
| R8135 | 9NK001-50447 | J | 820 1/10W Metal Oxide | AC |
| R8136 | 9NK001-50416 | J | 22 1/16W Metal Oxide | AC |
| R8137 | 9NK001-50417 | J | 6.8 1/16W Metal Oxide | AC |
| R8138 | 9NK001-50447 | J | 820 1/10W Metal Oxide | AC |
| R8139 | 9NK001-50416 | J | 22 1/16W Metal Oxide | AC |
| R8140 | 9NK001-50417 | J | 6.8 1/16W Metal Oxide | AC |
| R8141 | 9NK001-50447 | J | 820 1/10W Metal Oxide | AC |
| R8142 | 9NK001-50417 | J | 6.8 1/16W Metal Oxide | AC |
| R8143 | 9NK001-50416 | J | 22 1/16W Metal Oxide | AC |
| R8144 | 9NK001-50417 | J | 6.8 1/16W Metal Oxide | AC |
| R8145 | 9NK001-50416 | J | 22 1/16W Metal Oxide | AC |
| R8146 | 9NK001-50417 | J | 6.8 1/16W Metal Oxide | AC |
| R8147 | 9NK001-50416 | J | 22 1/16W Metal Oxide | AC |
| R8148 | 9NK001-50443 | J | 68 1/10W Metal Oxide | AC |
| R8149 | 9NK001-50443 | J | 68 1/10W Metal Oxide | AC |
| R8150 | 9NK001-50443 | J | 68 1/10W Metal Oxide | AC |
| R8151 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8153 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8155 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8157 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8158 | 9NK001-50418 | J | 3.3k 1/16W Metal Oxide | AC |
| R8159 | 9NK001-50430 | J | 10k 1/16W Metal Oxide | AC |
| R8160 | 9NK001-51064 | J | 10k 1/16W Array | AF |
| R8161 | 9NK001-50439 | J | 470 1/16W Metal Oxide | AC |
| R8162 | 9NK001-50410 | J | 4.7k 1/16W Metal Oxide | AC |
| R8163 | 9NK001-50410 | J | 4.7k 1/16W Metal Oxide | AC |
| R8164 | 9NK001-50419 | J | 390 1/16W Metal Oxide | AC |
| R8165 | 9NK001-50445 | J | 150 1/4W Metal Oxide | AC |
| R8166 | 9NK001-50442 | J | 0 1/10W Metal Oxide | AC |

## 9NK5600204233
## PC I/F UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R8167 | 9NK001-50442 | J | 0 1/10W Metal Oxide | AC |
| R8168 | 9NK001-50407 | J | 100 1/16W Metal Oxide | AC |
| R8169 | 9NK001-50424 | J | 10 1/16W Metal Oxide | AC |
| R8170 | 9NK001-50430 | J | 10k 1/16W Metal Oxide | AC |
| R8171 | 9NK001-50420 | J | 47k 1/16W Metal Oxide | AC |
| R8172 | 9NK001-50407 | J | 100 1/16W Metal Oxide | AC |
| R8173 | 9NK001-50407 | J | 100 1/16W Metal Oxide | AC |
| R8174 | 9NK001-51064 | J | 10k 1/16W Array | AF |
| R8175 | 9NK001-51066 | J | 6.8k 1/16W Array | AF |
| R8177 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8179 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8180 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8181 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8182 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8184 | 9NK001-50439 | J | 470 1/16W Metal Oxide | AC |
| R8185 | 9NK001-50408 | J | 1k 1/16W Metal Oxide | AC |
| R8186 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8187 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8190 | 9NK001-50406 | J | 910 1/16W Metal Oxide | AC |
| R8191 | 9NK001-50422 | J | 2k 1/16W Metal Oxide | AC |
| R8192 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8193 | 9NK001-51059 | J | 56 1/16W Array | AF |
| R8195 | 9NK001-51060 | J | 15 1/16W Array | AF |
| R8196 | 9NK001-51061 | J | 82 1/16W Array | AF |
| R8197 | 9NK001-51060 | J | 15 1/16W Array | AF |
| R8198 | 9NK001-51059 | J | 56 1/16W Array | AF |
| R8199 | 9NK001-51060 | J | 15 1/16W Array | AF |
| R8200 | 9NK001-51061 | J | 82 1/16W Array | AF |
| R8201 | 9NK001-51060 | J | 15 1/16W Array | AF |
| R8202 | 9NK001-51060 | J | 15 1/16W Array | AF |
| R8203 | 9NK001-51061 | J | 82 1/16W Array | AF |
| R8204 | 9NK001-51059 | J | 56 1/16W Array | AF |
| R8205 | 9NK001-51060 | J | 15 1/16W Array | AF |
| R8206 | 9NK001-51060 | J | 15 1/16W Array | AF |
| R8207 | 9NK001-51061 | J | 82 1/16W Array | AF |
| R8208 | 9NK001-51059 | J | 56 1/16W Array | AF |
| R8209 | 9NK001-51060 | J | 15 1/16W Array | AF |
| R8210 | 9NK001-51060 | J | 15 1/16W Array | AF |
| R8211 | 9NK001-51061 | J | 82 1/16W Array | AF |
| R8212 | 9NK001-51059 | J | 56 1/16W Array | AF |
| R8213 | 9NK001-51060 | J | 15 1/16W Array | AF |
| R8214 | 9NK001-51060 | J | 15 1/16W Array | AF |
| R8215 | 9NK001-51061 | J | 82 1/16W Array | AF |
| R8216 | 9NK001-51060 | J | 15 1/16W Array | AF |
| R8217 | 9NK001-51061 | J | 82 1/16W Array | AF |
| R8218 | 9NK001-51060 | J | 15 1/16W Array | AF |
| R8219 | 9NK001-51061 | J | 82 1/16W Array | AF |
| R8220 | 9NK001-50424 | J | 10 1/16W Metal Oxide | AC |
| R8221 | 9NK001-50424 | J | 10 1/16W Metal Oxide | AC |
| R8222 | 9NK001-50424 | J | 10 1/16W Metal Oxide | AC |
| R8223 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8225 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8226 | 9NK001-50425 | J | 15 1/16W Metal Oxide | AC |
| R8227 | 9NK001-50426 | J | 82 1/16W Metal Oxide | AC |
| R8232 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8235 | 9NK001-50430 | J | 10k 1/16W Metal Oxide | AC |
| R8238 | 9NK001-51059 | J | 56 1/16W Array | AF |
| R8239 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8241 | 9NK001-51059 | J | 56 1/16W Array | AF |
| R8242 | 9NK001-51059 | J | 56 1/16W Array | AF |
| R8243 | 9NK001-51063 | J | 47 1/16W Array | AF |
| R8244 | 9NK001-51059 | J | 56 1/16W Array | AF |
| R8245 | 9NK001-51063 | J | 47 1/16W Array | AF |
| R8246 | 9NK001-51059 | J | 56 1/16W Array | AF |
| R8247 | 9NK001-51063 | J | 47 1/16W Array | AF |
| R8248 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8249 | 9NK001-51063 | J | 47 1/16W Array | AF |
| R8250 | 9NK001-51063 | J | 47 1/16W Array | AF |
| R8251 | 9NK001-51063 | J | 47 1/16W Array | AF |
| R8252 | 9NK001-51063 | J | 47 1/16W Array | AF |
| R8253 | 9NK001-51063 | J | 47 1/16W Array | AF |
| R8254 | 9NK001-50427 | J | 56 1/16W Metal Oxide | AC |
| R8260 | 9NK001-51066 | J | 6.8k 1/16W Array | AF |
| R8261 | 9NK001-51066 | J | 6.8k 1/16W Array | AF |
| R8262 | 9NK001-51066 | J | 6.8k 1/16W Array | AF |
| R8263 | 9NK001-50407 | J | 100 1/16W Metal Oxide | AC |
| R8264 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |
| R8265 | 9NK001-50427 | J | 56 1/16W Metal Oxide | AC |
| R8268 | 9NK001-50407 | J | 100 1/16W Metal Oxide | AC |
| R8271 | 9NK001-50441 | J | 0 1/16W Metal Oxide | AC |

### SWITCH

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| SW8001 | 9NK001-70012 | J | Slide Switch | AN |

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| FB8001 | 9NK001-81099 | J | Ferrite Bead | AE |
| FL8002 | 9NK001-81098 | J | Ferrite Bead | AE |
| FL8003 | 9NK001-81098 | J | Ferrite Bead | AE |
| FL8004 | 9NK001-81098 | J | Ferrite Bead | AE |
| FL8005 | 9NK001-81098 | J | Ferrite Bead | AE |
| FL8018 | 9NK001-81098 | J | Ferrite Bead | AE |
| FL8019 | 9NK001-81098 | J | Ferrite Bead | AE |
| L8018 | 9NK001-81062 | J | Ferrite Bead | AG |
| L8019 | 9NK001-81062 | J | Ferrite Bead | AG |
| L8024 | 9NK001-81062 | J | Ferrite Bead | AG |
| L8025 | 9NK001-81062 | J | Ferrite Bead | AG |
| L8026 | 9NK001-81097 | J | Ferrite Bead | AE |
| L8028 | 9NK001-81069 | J | Ferrite Bead | AF |
| L8029 | 9NK001-81062 | J | Ferrite Bead | AG |
| L8030 | 9NK001-81062 | J | Ferrite Bead | AG |
| L8031 | 9NK001-81062 | J | Ferrite Bead | AG |
| L8032 | 9NK001-81062 | J | Ferrite Bead | AG |
| L8033 | 9NK001-81062 | J | Ferrite Bead | AG |
| P8001 | 9NK001-60138 | J | Connector | AX |
| SC8001 | 9NK001-60139 | J | Connector | AV |
| SC8002 | 9NK001-60140 | J | Connector | AU |
| SC8003 | 9NK001-60141 | J | Connector | AX |
| SC8004 | 9NK001-60142 | J | Connector | AX |

## 9NK5600204255
## AUDIO UNIT

### INTEGRATED CIRCUIT

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| IC1501 | 9NK2530100316 | J | Stereo Card, TDA1517 | AM |

### TRANSISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| Q1501 | 9NKM551510036 | J | 2SD1664 | AD |
| Q1502 | 9NKM551510036 | J | 2SD1664 | AD |
| Q1503 | 9NKM522000405 | J | MMBT3904 | AB |

### DIODES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D1501 | 9NK0920990416 | J | EV18N | AC |
| D1502 | 9NK0920990416 | J | EV18N | AC |

### CAPACITORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C1501 | 9NK1547691200 | J | 10 16V Ceramic | AB |
| C1503 | 9NKB121021500 | J | 1000 16V Electrolytic | AB |
| C1504 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C1505 | 9NKB121021500 | J | 1000 16V Electrolytic | AB |
| C1506 | 9NKB144711500 | J | 470 25V Electrolytic | AB |
| C1507 | 9NK1547691200 | J | 10 16V Ceramic | AB |
| C1508 | 9NKF124701333 | J | 47 16V Electrolytic | AC |
| C1512 | 9NKF121011333 | J | 100 16V Electrolytic | AC |

### RESISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| FB1501 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |
| R1501 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R1502 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R1503 | 9NK0343821300 | J | 820 1/10W Metal Oxide | AB |
| R1504 | 9NK0343821300 | J | 820 1/10W Metal Oxide | AB |
| R1505 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R1506 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R1507 | 9NK0343392300 | J | 3.9k 1/10W Metal Oxide | AB |
| R1508 | 9NK0341065300 | J | 18k 1/10W Metal Oxide | AB |
| R1509 | 9NK0343392300 | J | 3.9k 1/10W Metal Oxide | AB |
| R1510 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R1511 | 9NK0341055300 | J | 6.8k 1/10W Metal Oxide | AB |
| R1513 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R1514 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R1515 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R1516 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R1517 | 9NK0333000500 | J | 0 1W Metal Oxide | AB |
| R1518 | 9NK0343183300 | J | 18k 1/10W Metal Oxide | AB |
| R1519 | 9NK0341077300 | J | 47k 1/10W Metal Oxide | AB |

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| CN1501 | 9NK3071296834 | J | Connector, 2pin | AB |
| CN1502 | 9NK3071296934 | J | Connector, 3pin | AB |
| CN1503 | 9NK3070070600 | J | Connector, 9pin | AF |
| ⚠ TH1501 | 9NK0841110502 | J | Fuse 3A/125V | AD |

## 9NK5600204254
## TERMINAL UNIT

### INTEGRATED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| IC401 | 9NK2530224474 | J | Video SW With 6db Amp, NJM2245M | AM |
| IC402 | 9NK2530224474 | J | Video SW With 6db Amp, NJM2245M | AM |
| IC403 | 9NK2530224474 | J | Video SW With 6db Amp, NJM2245M | AM |
| IC404 | 9NK2530224474 | J | Video SW With 6db Amp, NJM2245M | AM |
| IC406 | 9NK2530224274 | J | 3I/p Video Sw+75Ohm Driver, NJM2244M | AM |
| IC407 | 9NK2600134434 | J | Dual Analog Switch, SN74LVC2G66DCTR | AE |
| IC2901 | 9NK2540086207 | J | 8Bit I/O Expander, M62320FP | AL |
| IC3001 | 9NK2600123234 | J | Dual Bus Buffer, TC7W125FU | AD |
| IC3002 | 9NK2600212034 | J | Dual 3-S InV Out Bus Buf, TC7WT240U | AF |
| IC3003 | 9NK2610099337 | J | EEPROM, ST24LC21B | |
| IC3004 | 9NK2600212034 | J | Dual 3-S InV Out Bus Buf, TC7WT240U | AF |
| IC3005 | 9NK2600022207 | J | Hex Inverter, N74F04DT | AE |
| IC3007 | 9NK2600100253 | J | Triple 2:1 Multiplexers, AD8185 | BA |
| IC3008 | 9NK2510250011 | J | Converter Sw, LM2664 | AL |

### TRANSISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| Q401 | 9NKM532500036 | J | DTC114EUA | AB |
| Q402 | 9NKM532500036 | J | DTC114EUA | AB |
| Q403 | 9NKM532500036 | J | DTC114EUA | AB |
| Q404 | 9NKM532500036 | J | DTC114EUA | AB |
| Q405 | 9NKN522000217 | J | MMBT3906 | AB |
| Q406 | 9NKM522000405 | J | MMBT3904 | AB |
| Q407 | 9NKN522000217 | J | MMBT3906 | AB |
| Q408 | 9NKN522000217 | J | MMBT3906 | AB |
| Q409 | 9NKM522000405 | J | MMBT3904 | AB |
| Q410 | 9NKN522000217 | J | MMBT3906 | AB |
| Q411 | 9NKM532500036 | J | DTC114EUA | AB |
| Q412 | 9NKM522000405 | J | MMBT3904 | AB |
| Q413 | 9NKN522000217 | J | MMBT3906 | AB |
| Q414 | 9NKM522000405 | J | MMBT3904 | AB |
| Q415 | 9NKM522000405 | J | MMBT3904 | AB |
| Q416 | 9NKN522000217 | J | MMBT3906 | AB |
| Q417 | 9NKM522000405 | J | MMBT3904 | AB |
| Q418 | 9NKM522000405 | J | MMBT3904 | AB |
| Q3001 | 9NKM532500236 | J | DTC114EUA | AB |
| Q5501 | 9NKM532500236 | J | DTC114EUA | AB |
| Q5502 | 9NKM532500236 | J | DTC114EUA | AB |

### DIODES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D403 | 9NKJ840340211 | J | Zener Diode 5.49-5.73V, HZU5.6B2 | AC |
| D429 | 9NK0920990416 | J | EV18N | AC |
| D430 | 9NK0920990416 | J | EV18N | AC |
| D431 | 9NK0920990416 | J | EV18N | AC |
| D432 | 9NK0920990416 | J | EV18N | AC |
| D436 | 9NK0920990416 | J | EV18N | AC |
| D437 | 9NK0920990416 | J | EV18N | AC |
| D441 | 9NK0920990416 | J | EV18N | AC |
| D442 | 9NK0920990416 | J | EV18N | AC |
| D443 | 9NK0920990416 | J | EV18N | AC |
| D444 | 9NK0920990416 | J | EV18N | AC |
| D447 | 9NK0920990416 | J | EV18N | AC |
| D448 | 9NK0920990416 | J | EV18N | AC |
| D449 | 9NK0920990416 | J | EV18N | AC |
| D450 | 9NK0920990416 | J | EV18N | AC |
| D451 | 9NK0920990416 | J | EV18N | AC |
| D452 | 9NK0920990416 | J | EV18N | AC |
| D453 | 9NK0920990416 | J | EV18N | AC |
| D454 | 9NK0920990416 | J | EV18N | AC |
| D455 | 9NK0920990416 | J | EV18N | AC |

## 9NK5600204254

## TERMINAL UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D456 | 9NK0920990416 | J | EV18N | AC |
| D457 | 9NK0920990416 | J | EV18N | AC |
| D458 | 9NK0920990416 | J | EV18N | AC |
| D459 | 9NK0920990416 | J | EV18N | AC |
| D460 | 9NK0920990416 | J | EV18N | AC |
| D461 | 9NK0920990416 | J | EV18N | AC |
| D462 | 9NK0920990416 | J | EV18N | AC |
| D463 | 9NK0920990416 | J | EV18N | AC |
| D3005 | 9NKK520700207 | J | BAV99 | AB |
| D3006 | 9NKK520700207 | J | BAV99 | AB |
| D3007 | 9NKK520700207 | J | BAV99 | AB |
| D3008 | 9NKK520700207 | J | BAV99 | AB |
| D3009 | 9NKK520700207 | J | BAV99 | AB |
| D3011 | 9NKK520700207 | J | BAV99 | AB |
| D3012 | 9NKK520700207 | J | BAV99 | AB |
| D3013 | 9NKK520700207 | J | BAV99 | AB |
| D3015 | 9NKK520700207 | J | BAV99 | AB |
| D3019 | 9NKJ841820007 | J | Zener Diode 12V, PDZ12B | AB |
| D3020 | 9NKJ841820007 | J | Zener Diode 12V, PDZ12B | AB |
| D3021 | 9NKJ841820007 | J | Zener Diode 12V, PDZ12B | AB |
| D3022 | 9NKJ841820007 | J | Zener Diode 12V, PDZ12B | AB |

### COILS AND TRANSFORMER

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| FL3001 | 9NK2921115908 | J | Ferrite Bead | AE |
| FL3002 | 9NK2921115908 | J | Ferrite Bead | AE |
| FL3003 | 9NK2921115908 | J | Ferrite Bead | AE |
| FL3004 | 9NK2921115908 | J | Ferrite Bead | AE |
| FL3005 | 9NK2921115908 | J | Ferrite Bead | AE |
| FL3006 | 9NK2909913706 | J | Filter | AF |
| FL3007 | 9NK2909913706 | J | Filter | AF |
| FL3008 | 9NK2921115908 | J | Ferrite Bead | AE |
| FL3009 | 9NK2909913706 | J | Filter | AF |
| FL401 | 9NK2909913606 | J | Filter | AF |
| FL402 | 9NK2909913306 | J | Filter | AD |
| FL403 | 9NK2909913306 | J | Filter | AD |
| L3001 | 9NK2923220212 | J | Inductor, 10µH | AB |
| L3002 | 9NK2923220212 | J | Inductor, 10µH | AB |
| L3003 | 9NK2923220212 | J | Inductor, 10µH | AB |
| L3004 | 9NK2923220212 | J | Inductor, 10µH | AB |
| L3005 | 9NK2923220212 | J | Inductor, 10µH | AB |
| T9401 | 9NK2817387646 | J | Transformer | AP |

### CAPACITORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C403 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C404 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C405 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C406 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C407 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C408 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C409 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C410 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C411 | 9NKF122201233 | J | 22 16V Electrolytic | AB |
| C412 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C413 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C414 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C415 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C416 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C417 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C418 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C419 | 9NKF122201233 | J | 22 16V Electrolytic | AB |
| C420 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C421 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C422 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C423 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C424 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C425 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C426 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C427 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C428 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C429 | 9NK1511445000 | J | 1000p 50V Ceramic | AB |
| C430 | 9NKF122204010 | J | 10 25V Electrolytic | AK |
| C431 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C432 | 9NKF144701433 | J | 47 25V Electrolytic | AC |
| C433 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C434 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C435 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C436 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C442 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C444 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C445 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C446 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C447 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C448 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C449 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C450 | 9NKF121002103 | J | 10 16V Elect.(NP) | AD |
| C451 | 9NKF124701333 | J | 47 16V Electrolytic | AC |
| C452 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C453 | 9NK1547691200 | J | 10 16V Ceramic | AB |
| C455 | 9NK1557667100 | J | 1 25V Ceramic | AB |
| C457 | 9NK1557667100 | J | 1 25V Ceramic | AB |
| C3001 | 9NK1511512000 | J | 18p 50V Ceramic | AB |
| C3002 | 9NK1511512000 | J | 18p 50V Ceramic | AB |
| C3003 | 9NK1511512000 | J | 18p 50V Ceramic | AB |
| C3004 | 9NK1511512000 | J | 18p 50V Ceramic | AB |
| C3005 | 9NK1511512000 | J | 18p 50V Ceramic | AB |
| C3006 | 9NK1511512000 | J | 18p 50V Ceramic | AB |
| C3007 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C3008 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3009 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3010 | 9NKF144701433 | J | 47 25V Electrolytic | AC |
| C3011 | 9NK1512454000 | J | 0.01 50V Ceramic | AB |
| C3012 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C3013 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3014 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3015 | 9NKE024702233 | J | 47 6.3V Electrolytic | AD |
| C3016 | 9NK1512454000 | J | 0.01 50V Ceramic | AB |
| C3017 | 9NK1511445000 | J | 1000p 50V Ceramic | AB |
| C3018 | 9NKF122201233 | J | 22 16V Electrolytic | AB |
| C3019 | 9NKE024702233 | J | 47 6.3V Electrolytic | AD |
| C3020 | 9NK1512454000 | J | 0.01 50V Ceramic | AB |
| C3021 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3022 | 9NKE024702233 | J | 47 6.3V Electrolytic | AD |
| C3023 | 9NK1512454000 | J | 0.01 50V Ceramic | AB |
| C3027 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C3028 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3029 | 9NKF121011333 | J | 100 16V Electrolytic | AC |
| C3030 | 9NKE024702233 | J | 47 6.3V Electrolytic | AD |
| C3031 | 9NK1512454000 | J | 0.01 50V Ceramic | AB |
| C3032 | 9NKE024702233 | J | 47 6.3V Electrolytic | AD |
| C3033 | 9NKF122201233 | J | 22 16V Electrolytic | AB |
| C3034 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3035 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C3038 | 9NK1512454000 | J | 0.01 50V Ceramic | AB |
| C3039 | 9NKE024702233 | J | 47 6.3V Electrolytic | AD |
| C3040 | 9NK1511445000 | J | 1000p 50V Ceramic | AB |
| C3041 | 9NK1512454000 | J | 0.01 50V Ceramic | AB |
| C3042 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C3043 | 9NK1547691200 | J | 10 16V Ceramic | AB |
| C3044 | 9NK1547691200 | J | 10 16V Ceramic | AB |
| C3045 | 9NKF141001233 | J | 10 25V Electrolytic | AC |
| C5501 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C5502 | 9NK1511530000 | J | 100p 50V Ceramic | AB |
| C9458 | 9NK1512454000 | J | 0.01 50V Ceramic | AB |
| C9462 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |

### RESISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R401 | 9NK0343123300 | J | 12k 1/10W Metal Oxide | AB |
| R402 | 9NK0343123300 | J | 12k 1/10W Metal Oxide | AB |
| R403 | 9NK0343123300 | J | 12k 1/10W Metal Oxide | AB |
| R404 | 9NK0343123300 | J | 12k 1/10W Metal Oxide | AB |
| R405 | 9NK0343105300 | J | 1M 1/10W Metal Oxide | AB |
| R406 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R407 | 9NK0343224300 | J | 220k 1/10W Metal Oxide | AB |
| R408 | 9NK0343105300 | J | 1M 1/10W Metal Oxide | AB |
| R409 | 9NK0343224300 | J | 220k 1/10W Metal Oxide | AB |
| R410 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |

## 9NK5600204254
## TERMINAL UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R411 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R412 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R413 | 9NK0343123300 | J | 12k 1/10W Metal Oxide | AB |
| R414 | 9NK0343123300 | J | 12k 1/10W Metal Oxide | AB |
| R415 | 9NK0343182300 | J | 1.8k 1/10W Metal Oxide | AB |
| R416 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R417 | 9NK0341062300 | J | 15k 1/10W Metal Oxide | AB |
| R418 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R419 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R420 | 9NK0343182300 | J | 1.8k 1/10W Metal Oxide | AB |
| R421 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R422 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R423 | 9NK0341062300 | J | 15k 1/10W Metal Oxide | AB |
| R424 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R425 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R426 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R427 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R428 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R429 | 9NK0323568600 | J | 5.6 1/2W Metal Oxide | AB |
| R430 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R431 | 9NK0343681300 | J | 680 1/10W Metal Oxide | AB |
| R432 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R433 | 9NK0343681300 | J | 680 1/10W Metal Oxide | AB |
| R434 | 9NK0343224300 | J | 220k 1/10W Metal Oxide | AB |
| R435 | 9NK0343224300 | J | 220k 1/10W Metal Oxide | AB |
| R436 | 9NK0341055300 | J | 6.8k 1/10W Metal Oxide | AB |
| R437 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R438 | 9NK0343122300 | J | 1.2k 1/10W Metal Oxide | AB |
| R439 | 9NK0343224300 | J | 220k 1/10W Metal Oxide | AB |
| R440 | 9NK0343562300 | J | 5.6k 1/10W Metal Oxide | AB |
| R441 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R442 | 9NK0341055300 | J | 6.8k 1/10W Metal Oxide | AB |
| R443 | 9NK0341047300 | J | 2.7k 1/10W Metal Oxide | AB |
| R444 | 9NK0343562300 | J | 5.6k 1/10W Metal Oxide | AB |
| R445 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R446 | 9NK0343222300 | J | 2.2k 1/10W Metal Oxide | AB |
| R447 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R448 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R449 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R450 | 9NK0341047300 | J | 2.7k 1/10W Metal Oxide | AB |
| R451 | 9NK0343222300 | J | 2.2k 1/10W Metal Oxide | AB |
| R452 | 9NK0323101600 | J | 100 1/2W Metal Oxide | AB |
| R453 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R454 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R455 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R456 | 9NK0323101600 | J | 100 1/2W Metal Oxide | AB |
| R457 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R458 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R460 | 9NK0343224300 | J | 220k 1/10W Metal Oxide | AB |
| R462 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R463 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R464 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R465 | 9NK0343472300 | J | 4.7k 1/10W Metal Oxide | AB |
| R467 | 9NK0343122300 | J | 1.2k 1/10W Metal Oxide | AB |
| R468 | 9NK0343122300 | J | 1.2k 1/10W Metal Oxide | AB |
| R469 | 9NK0341034300 | J | 330 1/10W Metal Oxide | AB |
| R470 | 9NK0343100300 | J | 10 1/10W Metal Oxide | AB |
| R482 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R483 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R485 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R486 | 9NK0343105300 | J | 1M 1/10W Metal Oxide | AB |
| R487 | 9NK0343105300 | J | 1M 1/10W Metal Oxide | AB |
| R488 | 9NK0343105300 | J | 1M 1/10W Metal Oxide | AB |
| R491 | 9NK0343154300 | J | 150k 1/10W Metal Oxide | AB |
| R492 | 9NK0343471300 | J | 470 1/10W Metal Oxide | AB |
| R493 | 9NK0343393300 | J | 39k 1/10W Metal Oxide | AB |
| R494 | 9NK0343393300 | J | 39k 1/10W Metal Oxide | AB |
| R496 | 9NK0343154300 | J | 150k 1/10W Metal Oxide | AB |
| R497 | 9NK0341087300 | J | 100k 1/10W Metal Oxide | AB |
| R498 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R499 | 9NK0343393300 | J | 39k 1/10W Metal Oxide | AB |
| R500 | 9NK0343393300 | J | 39k 1/10W Metal Oxide | AB |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R501 | 9NK0343471300 | J | 470 1/10W Metal Oxide | AB |
| R502 | 9NK0343154300 | J | 150k 1/10W Metal Oxide | AB |
| R503 | 9NK0341087300 | J | 100k 1/10W Metal Oxide | AB |
| R504 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R2901 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2902 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2903 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2904 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2905 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2906 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R2907 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3003 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3004 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R3005 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R3006 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R3007 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R3008 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R3009 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R3011 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3012 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3013 | 9NK0343473300 | J | 47k 1/10W Metal Oxide | AB |
| R3014 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3015 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3016 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3017 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R3018 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R3019 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3020 | 9NK0343101300 | J | 100 1/10W Metal Oxide | AB |
| R3021 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3022 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3023 | 9NK0343222300 | J | 2.2k 1/10W Metal Oxide | AB |
| R3024 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3026 | 9NK0343152300 | J | 1.5k 1/10W Metal Oxide | AB |
| R3027 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R3028 | 9NK0343222300 | J | 2.2k 1/10W Metal Oxide | AB |
| R3029 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R3030 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R3031 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R3033 | 9NK0343152300 | J | 1.5k 1/10W Metal Oxide | AB |
| R3034 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3035 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3036 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3037 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R3038 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3042 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3043 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3045 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R3046 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R3047 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R3048 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R3049 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R3052 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3053 | 9NK0311379000 | J | 75 1/4W Metal Oxide | AB |
| R3057 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R3058 | 9NK0341034300 | J | 330 1/10W Metal Oxide | AB |
| R5501 | 9NK0341084300 | J | 82k 1/10W Metal Oxide | AB |
| R5502 | 9NK0341048300 | J | 3.3k 1/10W Metal Oxide | AB |
| R5503 | 9NK0343154300 | J | 150k 1/10W Metal Oxide | AB |
| R5505 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R5507 | 9NK0343102300 | J | 1k 1/10W Metal Oxide | AB |
| R9401 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R9402 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R9403 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R9404 | 9NK0313561000 | J | 560 1/4W Metal Oxide | AB |
| R9405 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R9411 | 9NK0313561000 | J | 560 1/4W Metal Oxide | AB |
| R9412 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |
| R9421 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |
| R9422 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |
| R9423 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |
| R9424 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |
| R9425 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |
| R9426 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |
| R9427 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |
| R9428 | 9NK0343000100 | J | 0 1/8W Metal Oxide | AB |

## 9NK5600204254
## TERMINAL UNIT (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R9429 | 9NK0343750300 | J | 75 1/10W Metal Oxide | AB |
| R9430 | 9NK0343750300 | J | 75 1/10W Metal Oxide | AB |
| R9431 | 9NK0343750300 | J | 75 1/10W Metal Oxide | AB |
| R9432 | 9NK0343750300 | J | 75 1/10W Metal Oxide | AB |

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| FB401 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB402 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB403 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB404 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB406 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB407 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB408 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB409 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB410 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB411 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB414 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB3001 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB3002 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB3003 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB3004 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB3005 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB3006 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB3007 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB3008 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB3009 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB3010 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB5501 | 9NK2921174812 | J | Ferrite Bead | AB |
| FB5502 | 9NK2921174812 | J | Ferrite Bead | AB |
| CN3001 | 9NK3074170028 | J | Socket, 30pin | AL |
| J401 | 9NK307226352S | J | Mini Din 4P | AK |
| J402 | 9NK3072268956 | J | RCA Jack | AN |
| J403 | 9NK307226392T | J | Phone Jack | AE |
| J404 | 9NK307226392T | J | Phone Jack | AE |
| J405 | 9NK307226392T | J | Phone Jack | AE |
| J3001 | 9NK307226382T | J | BNC 11P | AT |
| J5501 | 9NK307226402T | J | Phone Jack | AE |
| J9401 | 9NK3072263698 | J | RJ45 8P8C | AM |
| SC3001 | 9NK3074041031 | J | D-Sub Flmale 15P | AW |
| SC3002 | 9NK3074041131 | J | D-Sub Flmale 15P | AV |
| SC3003 | 9NK3074071031 | J | D-Sub Male 9P | AT |

## 9NK5600204256
## INDEX UNIT

### INTEGRATED CIRCUITS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| IC1101 | 9NK2520004104 | J | Comparater LM393D,623 | AC |
| IC1102 | 9NK2312000012 | J | Photointerrupter GP2S27T2J00F | AK |

### CAPACITORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C1101 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C1102 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |
| C1103 | 9NK1511445000 | J | 1000p 50V Ceramic | AB |

### RESISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R1100 | 9NK0341071300 | J | 33k 1/10W Metal Oxide | AB |
| R1101 | 9NK0343680100 | J | 68 1/8W Metal Oxide | AB |
| R1102 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R1103 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R1104 | 9NK0341059300 | J | 10k 1/10W Metal Oxide | AB |
| R1105 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |

### MISCELLANEOUS PART

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| P1101 | 9NK3070070528 | J | Connector, 4pin | AE |

## 9NK5600204257
## IR (Front) UNIT

### DIODE

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D2205 | 9NK0920990416 | J | EV18N | AC |

### COIL

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| L5701 | 9NK2923050812 | J | Inductor, 22µH | AB |

### CAPACITORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C5701 | 9NKF122201208 | J | 22 16V Electrolytic | AB |
| C5704 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| CN5701 | 9NK3071323934 | J | Connector, 3pin | AB |
| RMC5701 | 9NK2320600528 | J | Infrared Remote Control Receiver | AK |

## 9NK5600204260
## IR (Back) UNIT

### DIODE

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D2206 | 9NK0920990416 | J | EV18N | AC |

### COIL

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| L5702 | 9NK2923050812 | J | Inductor, 22µH | AB |

### CAPACITORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C5702 | 9NKF122201208 | J | 22 16V Electrolytic | AB |
| C5705 | 9NK1517658000 | J | 0.1 50V Ceramic | AB |

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| CN5702 | 9NK3071323934 | J | Connector, 3pin | AB |
| RMC5702 | 9NK2320600528 | J | Infrared Remote Control Receiver | AK |

## 9NK5600204258
## KEYPAD UNIT

### TRANSISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| Q2201 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2202 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2203 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2204 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2205 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2206 | 9NKM532500236 | J | DTC144EUA | AB |
| Q2207 | 9NKM532500236 | J | DTC144EUA | AB |

### DIODES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| D2201 | 9NK2300663706 | J | LED, Red/Yellow-Green | AD |
| D2202 | 9NK2300663706 | J | LED, Red/Yellow-Green | AD |
| D2203 | 9NK2300663706 | J | LED, Red/Yellow-Green | AD |
| D2204 | 9NK2300471206 | J | LED, Red | AC |

### RESISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R2201 | 9NK0343151300 | J | 150 1/10W Metal Oxide | AB |
| R2202 | 9NK0343391300 | J | 390 1/10W Metal Oxide | AB |
| R2203 | 9NK0343151300 | J | 150 1/10W Metal Oxide | AB |
| R2204 | 9NK0343391300 | J | 390 1/10W Metal Oxide | AB |
| R2205 | 9NK0343151300 | J | 150 1/10W Metal Oxide | AB |
| R2206 | 9NK0343391300 | J | 390 1/10W Metal Oxide | AB |
| R2207 | 9NK0343391300 | J | 390 1/10W Metal Oxide | AB |
| R2208 | 9NK0343000300 | J | 0 1/10W Metal Oxide | AB |

### SWITCH

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| S2201 | 9NK3000901620 | J | Switch, VOLUM - (LEFT) | AE |
| S2202 | 9NK3000901620 | J | Switch, FOCUS (-) | AE |
| S2203 | 9NK3000901620 | J | Switch, UP | AE |
| S2204 | 9NK3000901620 | J | Switch, ZOOM (-) | AE |
| S2205 | 9NK3000901620 | J | Switch, AUTOSYNC | AE |
| S2206 | 9NK3000901620 | J | Switch, DOWN | AE |
| S2207 | 9NK3000901620 | J | Switch, FOCUS (+) | AE |
| S2208 | 9NK3000901620 | J | Switch, ZOOM (+) | AE |
| S2209 | 9NK3000901620 | J | Switch, ENTER | AE |
| S2210 | 9NK3000901620 | J | Switch, INPUT4, 5 | AE |
| S2211 | 9NK3000901620 | J | Switch, STANDBY | AE |
| S2212 | 9NK3000901620 | J | Switch, KEYSTONE | AE |
| S2213 | 9NK3000901620 | J | Switch, RETURN (UNDO) | AE |
| S2214 | 9NK3000901620 | J | Switch, ON | AE |
| S2215 | 9NK3000901620 | J | Switch, VOLUM + (RIGHT) | AE |
| S2216 | 9NK3000901620 | J | Switch, MENU | AE |
| S2217 | 9NK3000901620 | J | Switch, INPUT1, 2, 3 | AE |
| S2218 | 9NK3000901620 | J | Switch, LENS SHIFT | AE |

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| SC2201 | 9NK3072608866 | J | Connector, 12pin | AG |
| SC2202 | 9NK3070070700 | J | Connector, 10pin | AG |

## 9NK5600204263
## LAMP1 COVER UNIT

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| S1 | 9NK3000069336 | J | Maicro Switch | AF |
| CN1 | 9NK3070297028 | J | Connector, 2pin | AE |

## 9NK5600204264
## LAMP2 COVER UNIT

### MISCELLANEOUS PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| S2 | 9NK3000069336 | J | Maicro Switch | AF |
| CN2 | 9NK3070297028 | J | Connector, 2pin | AE |

# CABINET AND MECHANICAL PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| 1 | 9NK0990073900 | J | Ballast Unit | CG |
| 2 | 9NK3100001000 | J | Screw, M3*0.5*10 AC-IN Socket*2 | AC |
| 3 | 9NK3100132500 | J | Screw, M3*0.5*25 Lamp Blower L*2 | AD |
| 4 | 9NK3100132500 | J | Screw, M3*0.5*25 Lamp Blower R*2 | AD |
| 5 | 9NK3100132800 | J | Screw, M3*0.5*28 Blower Rod*3 | AB |
| 6 | 9NK3100300800 | J | Screw, M3*0.5*8 Blower Bracket Rod*2 | AB |
| 7 | 9NK3100300800 | J | Screw, M3*0.5*8 Sensor BD*1 | AB |
| 8 | 9NK3100300800 | J | Screw, M3*0.5*8 Blower Bracket Lamp R*2 | AB |
| 9 | 9NK3100300800 | J | Screw, M3*0.5*8 Handle Bracket2*6 | AB |
| 10 | 9NK3100300800 | J | Screw, M3*0.5*8 Blower Duct*3 | AB |
| 11 | 9NK3100300800 | J | Screw, M3*0.5*8 IO PWBA*6 | AB |
| 12 | 9NK3100300800 | J | Screw, M3*0.5*8 IO Bracket*4 | AB |
| 13 | 9NK3100300800 | J | Screw, M3*0.5*8 FAN Bracket PWBA*2 | AB |
| 14 | 9NK3100300800 | J | Screw, M3*0.5*8 Ballast Holder*4 | AB |
| 15 | 9NK3100300800 | J | Screw, M3*0.5*8 Power PWBA*4 | AB |
| 16 | 9NK3100300800 | J | Screw, M3*0.5*8 Power Channel Down*4 | AB |
| 17 | 9NK3100300800 | J | Screw, M3*0.5*8 SPK Bracket*2 | AB |
| 18 | 9NK3100300800 | J | Screw, M3*0.5*8 Audio*4 | AB |
| 19 | 9NK3100450600 | J | Screw, M3*0.5*6 Power Channel*4 | AB |
| 20 | 9NK3100300800 | J | Screw, M3*0.5*8 ENG*4 | AB |
| 21 | 9NK3100300800 | J | Screw, M3*0.5*8 PC PWBA*1 | AB |
| 22 | 9NK3100300800 | J | Screw, M3*0.5*8 Filter PWBA*4 | AB |
| 23 | 9NK3100300800 | J | Screw, M3*0.5*8 TOP*7 | AB |
| 24 | 9NK3100300800 | J | Screw, M3*0.5*8 ADJ*2 | AB |
| 25 | 9NK3100300800 | J | Screw, M3*0.5*8 Bimetal*4 | AB |
| 26 | 9NK3100300800 | J | Screw, M3*0.5*8 Handle Bracket3*11 | AB |
| 27 | 9NK3100300800 | J | Screw, M3*0.5*8 MB*5 | AB |
| 28 | 9NK3100300800 | J | Screw, M3*0.5*8 Lamp Channel | AB |
| 29 | 9NK3100300800 | J | Screw, M3*0.5*8 PC BD Bracket*2 | AB |
| 30 | 9NK3100300800 | J | Screw, M3*0.5*8 Engine Support*5 | AB |
| 31 | 9NK3100402000 | J | Screw, M3*0.5*20 FAN PWBA*8 | AB |
| 32 | 9NK3102301200 | J | Screw, M4*0.7*12 Lens Shift*8 | AB |
| 33 | 9NK3102321500 | J | Screw, M4*0.7*15 Lens*3 | AB |
| 34 | 9NK3105120600 | J | Screw, M4*0.7*8 AC-Socket Cable*1 | AB |
| 35 | 9NK3105136100 | J | Screw, M2*0.4*1.7 Speaker | AB |
| 36 | 9NK3105221300 | J | Screw, M3*0.5*5 ADJ*6 | AB |
| 37 | 9NK3105260800 | J | Screw, M2*0.4*5 Lamp Duct R*2 | AB |
| 38 | 9NK3105260800 | J | Screw, M2*0.4*5 Lamp_Duct_L*2 | AB |
| 39 | 9NK3105260800 | J | Screw, M2*0.4*5 Rod Duct*1 | AB |
| 40 | 9NK3105260800 | J | Screw, M2*0.4*5 Power Duct*4 | AB |
| 41 | 9NK3105260800 | J | Screw, M2*0.4*5 Lamp L Grill*4 | AB |
| 42 | 9NK3105260800 | J | Screw, M2*0.4*5 Micro_SW*2 | AB |
| 43 | 9NK3105263700 | J | Screw, M2*0.4*5 Keypad*11 | AB |
| 44 | 9NK3105302700 | J | Screw, M3*0.5*14 Lamp Channel | AB |
| 45 | 9NK3105302700 | J | Screw, M3*0.5*14 TOP*2 | AB |
| 46 | 9NK3105302700 | J | Screw, M3*0.5*14 Lamp-Channel-Cover2*1 | AB |
| 47 | 9NK3106150400 | J | Screw, M3.5*1*8 Handle Bracket1*4 | AB |
| 48 | 9NK3106150400 | J | Screw, M3.5*1*8 IR Sensor*1 | AB |
| 49 | 9NK3106150400 | J | Screw, M3.5*1*8 Thermal Sensor*1 | AB |
| 50 | 9NK3106150400 | J | Screw, M3.5*1*8 Chassis | AB |
| 51 | 9NK3106170600 | J | Screw, É”3*1.058*12 TOP*9 | AB |
| 52 | 9NK3106390400 | J | Screw, M3*1.058*8 Lamp Channel | AB |
| 53 | 9NK3106390400 | J | Screw, M3*1.058*8 Filter Interlock*1 | AB |
| 54 | 9NK3109107500 | J | Screw, M2*0.4*3 Lens Trim*1 | AB |
| 55 | 9NK3110260500 | J | Washer E-Ring Lamp Cover*1 | AB |
| 56 | 9NK3110260500 | J | Washer E-Ring Handle Pin*2 | AB |
| 57 | 9NK3110366300 | J | Washer PLAIN ADJ*2 | AB |
| 58 | 9NK3200937600 | J | Label Image Quality | AG |
| 59 | 9NK3201988101 | J | Label ID | AM |
| 60 | 9NK3202334300 | J | Label Warning | AK |
| 61 | 9NK3202334400 | J | Label Warning | AG |
| 62 | 9NK3209227800 | J | Label Fusaguna | AK |
| 63 | 9NK3202056501 | J | Lamp Label | |
| 64 | 9NK3230038700 | J | Snap Bushing | AC |
| 65 | 9NK3240270800 | J | Blower Cushion | AC |
| 66 | 9NK3240707501 | J | Insulator | AG |
| 67 | 9NK3240738700 | J | Insulator | AH |
| 68 | 9NK3240984100 | J | Cushion Rubber for Fan | AP |
| 69 | 9NK3240988801 | J | Cushion SIRub for Fan | AN |
| 70 | 9NK3240990600 | J | Sponge Cushion | AK |
| 71 | 9NK3240997400 | J | Sponge | AE |
| 72 | 9NK3240997600 | J | Sponge | AH |
| 73 | 9NK3241171402 | J | Insulator | AT |
| 74 | 9NK3241175100 | J | Insulator | AP |
| 75 | 9NK3241175300 | J | Insulator | AQ |
| 76 | 9NK3241175500 | J | Insulator IR Filter | AK |
| 77 | 9NK3241190701 | J | Insulator | AQ |
| 78 | 9NK3351276800 | J | Pin | AD |
| 79 | 9NK3797405000 | J | Cover IO Ass'y | |
| 80 | 9NK3390041701 | J | Lamp AIR Guide | AT |
| 81 | 9NK3390042300 | J | IR Front Hmt | AF |
| 82 | 9NK3390128800 | J | Cover IR Back | AF |
| 83 | 9NK3797405100 | J | Top Cabinet Ass'y | |
| 83-1 | *Not Available* | - | Wire Holder | – |
| 83-2 | *Not Available* | - | Soponge | – |
| 83-3 | *Not Available* | - | Soponge | – |
| 83-4 | *Not Available* | - | Tefron | – |
| 83-5 | *Not Available* | - | Tefron | – |
| 83-6 | *Not Available* | - | Top Cabinet | – |
| 84 | 9NK3797405200 | J | Cover Blower R Ass'y | |
| 85 | 9NK3797405300 | J | Cover Blower L Ass'y | |
| 86 | 9NK3390802000 | J | Handle | BA |
| 87 | 9NK3390902600 | J | Lens Cover | AX |
| 88 | 9NK3391202501 | J | Cover Filter | AX |
| 89 | 9NK3391305300 | J | Lamp Cover | AY |
| 90 | 9NK3395016200 | J | Fan Holder | AL |
| 91 | 9NK3395016303 | J | Lens Trim | AQ |
| 92 | 9NK3395016400 | J | Lamp Duct L | AH |
| 93 | 9NK3395016500 | J | Power Duct | AQ |
| 94 | 9NK3797405400 | J | Lamp Channel Ass'y | |
| 95 | 9NK3395016700 | J | Lamp Duct R-R | AF |
| 96 | 9NK3395016800 | J | Lamp Duct R-L | AH |
| 97 | 9NK3395017002 | J | Lamp Channel Btm | AX |

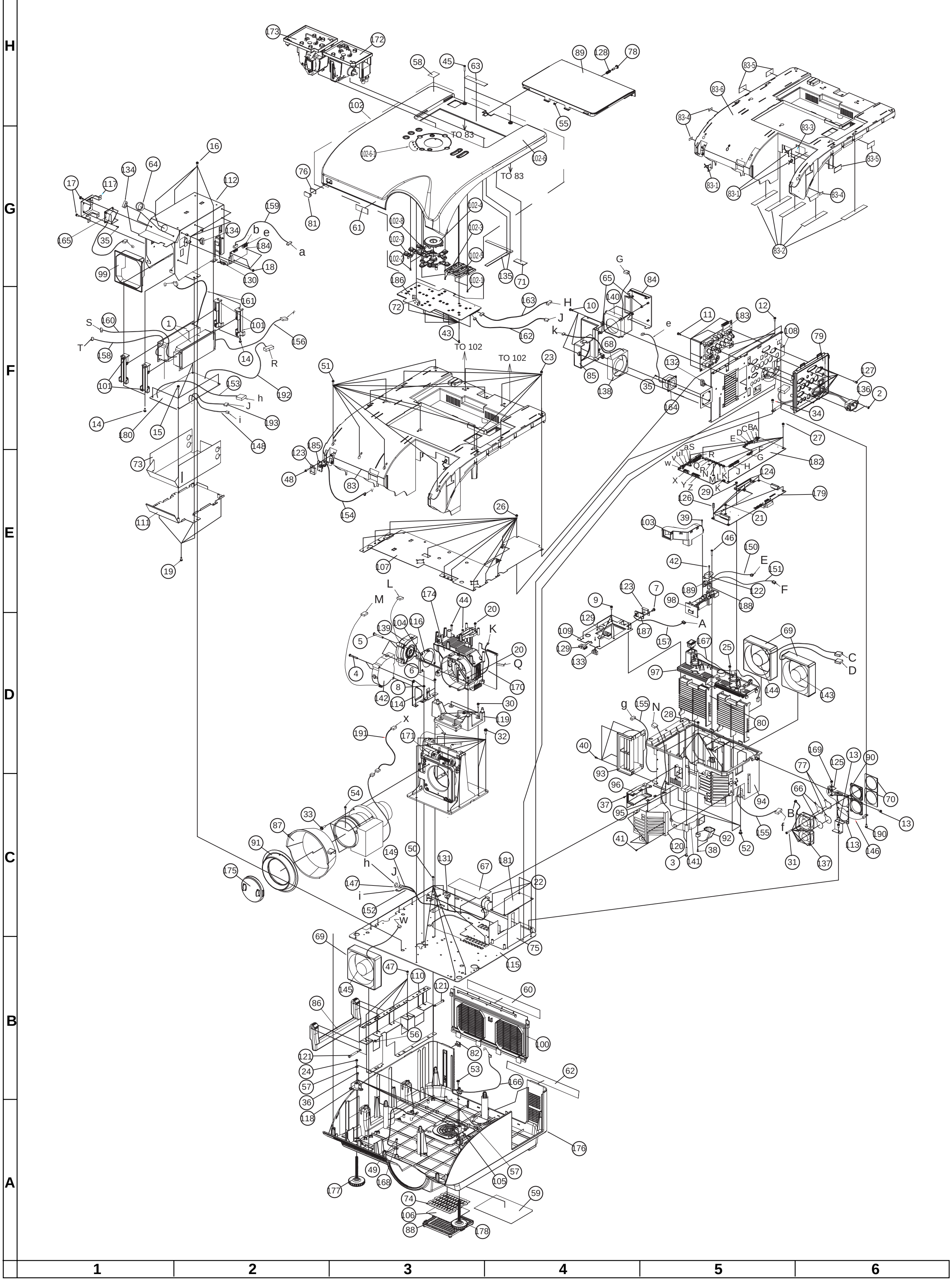
# CABINET AND MECHANICAL PARTS
## (Continued)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| 98 | 9NK3395017103 | J | Lamp Channel Top | AN |
| 99 | 9NK3395017200 | J | Power AIR Guide | AG |
| 100 | 9NK3797405500 | J | Fan AIR Guide Ass'y | |
| 101 | 9NK3797405600 | J | Holder Ass'y | |
| 102 | 9NK3398012901 | J | Top Case Ass'y | CA |
| 102-1 | 9NK3105260800 | J | Screw, M2*0.4*5 Button2*2 | AB |
| 102-2 | 9NK3105260800 | J | Screw, M2*0.4*5 Button Frame2*2 | AB |
| 102-3 | 9NK3105260800 | J | Screw, M2*0.4*5 Button Frame1*2 | AB |
| 102-4 | 9NK3391009800 | J | Button | |
| 102-5 | 9NK3391010400 | J | Botton | |
| 102-6 | 9NK3398013601 | J | Top Cover Ass'y | BZ |
| 102-7 | 9NK3398013700 | J | Frame Button | |
| 102-8 | 9NK3398013800 | J | Frame Button | |
| 103 | 9NK3398013001 | J | Rod Duct Ass'y | BE |
| 104 | 9NK3421035800 | J | Cable Tie | AB |
| 105 | 9NK3455089300 | J | ADJ Foot Bracket | AK |
| 106 | 9NK3455089500 | J | Screen Bottom | AF |
| 107 | 9NK3797405700 | J | Handle Bracket3 Ass'y | |
| 108 | 9NK3797405800 | J | IO Bracket Ass'y | |
| 109 | 9NK3455090201 | J | Plate | AK |
| 110 | 9NK3797405900 | J | Handle Bracket Ass'y | |
| 111 | 9NK3455090801 | J | Power Channel Down | AR |
| 112 | 9NK3797406000 | J | Power Channel Ass'y | |
| 113 | 9NK3455091000 | J | Fan Bracket | AK |
| 114 | 9NK3455091100 | J | Blower Bracket Lamp R | AG |
| 115 | 9NK3455091202 | J | Case Chassis | BB |
| 116 | 9NK3455091300 | J | Blower Bracket | AK |
| 117 | 9NK3455091502 | J | Bracket Spk R | AH |
| 118 | 9NK3455091700 | J | Adj Foot Bracket R | AK |
| 119 | 9NK3455092900 | J | Engine Support Mga | AX |
| 120 | 9NK3455093600 | J | Lamp L Grill | |
| 121 | 9NK3455097001 | J | Holder | AN |
| 122 | 9NK3455200600 | J | Bracket Cover | AE |
| 123 | 9NK3455203702 | J | Bracket IR Front | AF |
| 124 | 9NK3455216100 | J | Bracket PC Board | AQ |
| 125 | 9NK3455217400 | J | Fan Bracket | |
| 126 | 9NK3461429000 | J | Stand Off | AD |
| 127 | 9NK3461431702 | J | Stand Off | AN |
| 128 | 9NK3462009700 | J | Spring | AE |
| 129 | 9NK3470304700 | J | Wire Saddle (Handle_Bracket2*2) | AC |
| 130 | 9NK3470314400 | J | Wire Clip (Power Channel UP) | AD |
| 131 | 9NK3470314600 | J | Wire Saddle (Chassis*6) | AD |
| 132 | 9NK3470314600 | J | Wire Saddle (IO_Bracket*1) | AD |
| 133 | 9NK3470314600 | J | Wire Saddle (Handle_Bracket2*1) | AD |
| 134 | 9NK3470314600 | J | Wire Saddle (Power_Channel_UP*8) | AD |
| 135 | 9NK3470314900 | J | Cable Mount | AF |
| 136 | 9NK3610554102 | J | AC Socket Ass'y | AL |
| 137 | 9NK3620417511 | J | DC Fan Ass'y | BD |
| 138 | 9NK3620623011 | J | DC Fan Ass'y | AY |
| 139 | 9NK3620690511 | J | DC Fan Ass'y | BB |
| 140 | 9NK3620690611 | J | DC Fan Ass'y | BB |
| 141 | 9NK3620790811 | J | DC Fan Ass'y | BD |
| 142 | 9NK3620790911 | J | DC Fan Ass'y | BD |
| 143 | 9NK3620913811 | J | DC Fan Ass'y | BB |
| 144 | 9NK3620913911 | J | DC Fan Ass'y | BB |
| 145 | 9NK3620914011 | J | DC Fan Ass'y | AY |
| 146 | 9NK3640990100 | J | Wire With Terminal | AE |
| 147 | 9NK3670253302 | J | Wire With Housing 2Pin | AG |
| 148 | 9NK3670253401 | J | Wire With Housing 2Pin | AG |
| 149 | 9NK3670253502 | J | Wire With Housing 2Pin | AK |
| 150 | 9NK3670255501 | J | Wire With Housing 2Pin | AG |
| 151 | 9NK3670255601 | J | Wire With Housing 2Pin | AG |
| 152 | 9NK3670336002 | J | Wire With Housing 3Pin | AL |
| 153 | 9NK3670336203 | J | Wire With Housing 4Pin | AN |
| 154 | 9NK3670336301 | J | Wire With Housing 3Pin | AK |
| 155 | 9NK3670336500 | J | Wire With Housing 3Pin | AZ |
| 156 | 9NK3670336601 | J | Wire With Housing 4Pin | AT |
| 157 | 9NK3670336701 | J | Wire With Housing 3Pin | AG |
| 158 | 9NK3670627001 | J | Wire With Housing 6Pin | AL |
| 159 | 9NK3670707701 | J | Wire With Housing 7Pin | AL |
| 160 | 9NK3674024401 | J | Wire With Housing 4Pin | AL |
| 161 | 9NK3674032400 | J | Wire With Housing 4Pin | AT |
| 162 | 9NK3679031301 | J | Wire With Housing 10Pin | AM |
| 163 | 9NK3679031401 | J | Wire With Housing 12Pinin | AN |
| 164 | 9NK3790196401 | J | Speaker Ass'y L | AB |
| 165 | 9NK3790196501 | J | Speaker Ass'y R | AB |
| 166 | 9NK3790196601 | J | Other Ass'y Sensor Switch+Housing | AL |
| 167 | 9NK3790196705 | J | Other Ass'y Rocker Switch+Housing | |
| 168 | 9NK3790196804 | J | Wire With Thermistor 2Pin | AS |
| 169 | 9NK3100300800 | J | Screw, M3*0.5*8 | AB |
| 170 | 9NK3790197804 | J | Wire With Thermistor 2Pin | AR |
| 171 | 9NK3797094303 | J | Lens Shift Ass'y | |
| 172 | AN-PH50LP1 | - | Lamp Unit 1, (Option) | – |
| 173 | AN-PH50LP2 | - | Lamp Unit 2, (Option) | – |
| 174 | 9NK3797094602 | J | Optical Mecha | |
| 175 | 9NK3797200401 | J | Lens Cap Ass'y | AN |
| 176 | 9NK3797204901 | J | Bottom Case Ass'y | CB |
| 177 | 9NK3797205002 | J | Foot Tie R Ass'y | |
| 178 | 9NK3797205102 | J | Foot Tie L Ass'y | |
| 179 | 9NK5600204261 | J | PC I/F PWB Ass'y | |
| 180 | 9NK5600204232 | J | Power PWB Ass'y | BX |
| 181 | 9NK5600204233 | J | Filter PWB Ass'y | BE |
| 182 | 9NK5600204252 | J | Main PWB Ass'y | CK |
| 183 | 9NK5600204254 | J | Terminal PWB Ass'y | BW |
| 184 | 9NK5600204255 | J | Audio PWB Ass'y | BR |
| 185 | 9NK5600204257 | J | IR Front PWB Ass'y | AW |
| 186 | 9NK5600204258 | J | Keypad PWB Ass'y | AZ |
| 187 | 9NK5600204260 | J | IR Rear PWB Ass'y | AW |
| 188 | 9NK5600204263 | J | Lamp1 Cover PWB Ass'y | AW |
| 189 | 9NK5600204264 | J | Lamp2 Cover PWB Ass'y | AW |
| 190 | 9NK3100300800 | J | Screw, M3*0.5*8 | AB |
| 191 | 9NK3670628001 | J | Wire With Housing 6Pin | AR |
| 192 | 9NK3679032803 | J | Wire With Housing 34Pin | |
| 193 | 9NK3670336102 | J | Wire With Housing 3Pin | AK |

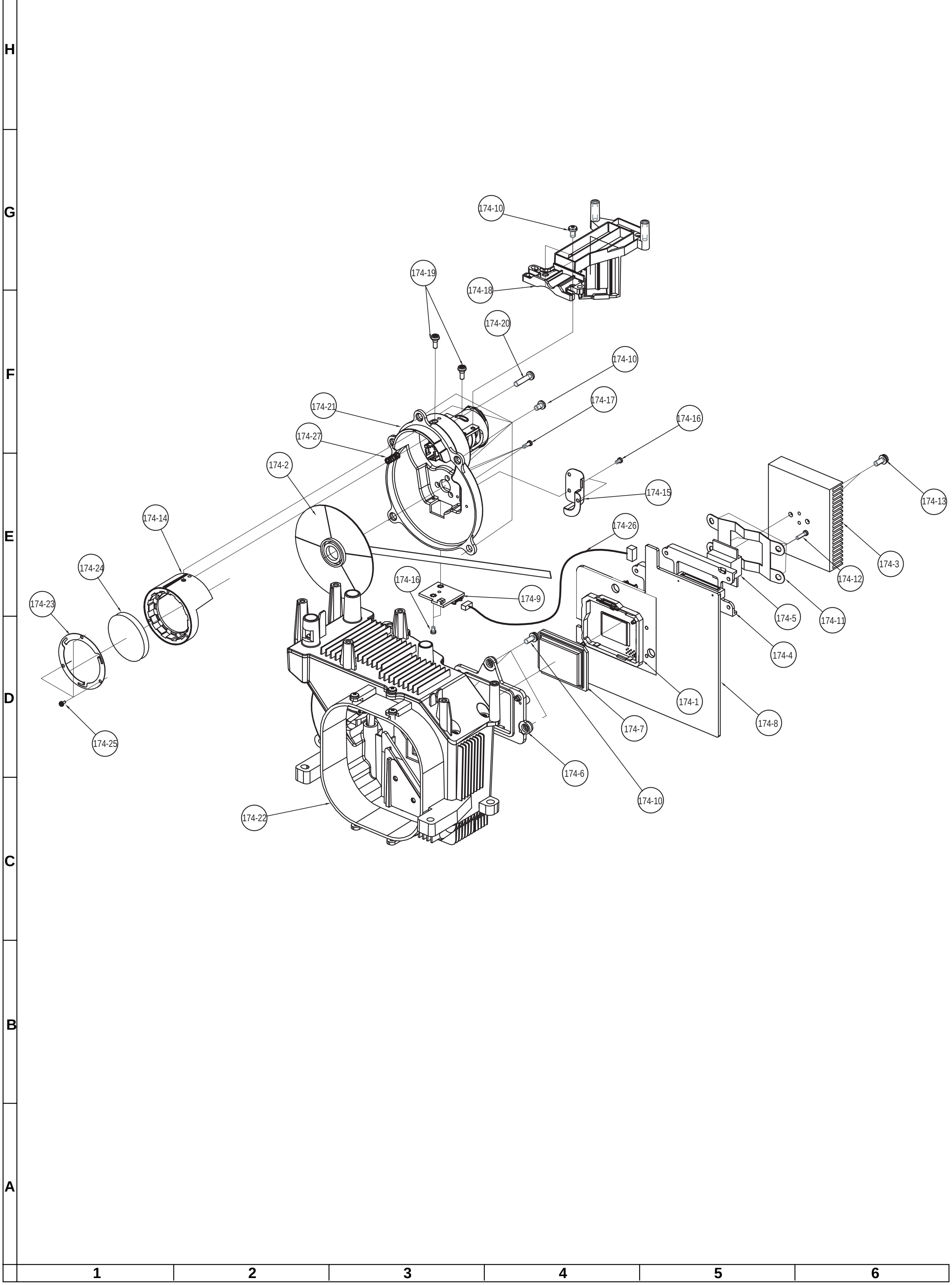
## OPTICS MECHANISM PARTS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| 174 | 9NK3797094602 | J | Optical Mecha | |
| 174-1 | 9NK3020060329 | J | DMD Socket 166Pin | AZ |
| 174-2 | 9NK3250701300 | J | Color Wheel | BU |
| 174-3 | 9NK3341531000 | J | Heat Sink | AQ |
| 174-4 | 9NK3450201700 | J | Conductor Stand | AU |
| 174-5 | 9NK3797406100 | J | DMD Stud Ass'y | |
| 174-6 | 9NK3455091601 | J | DMD Plate | AN |
| 174-7 | 9NK3455092001 | J | DMD Mount | AX |
| 174-8 | 9NK5059700981 | J | DMD 0.7 XGA DDR | DU |
| 174-9 | 9NK5600204253 | J | Formatter Board Ass'y | CM |
| 174-10 | 9NK3105225000 | J | Screw, M3*0.5*5 | AB |
| 174-11 | 9NK3461803500 | J | Spring, DMD Mount | AH |
| 174-12 | 9NK3105041000 | J | Screw, M2*0.4*8 | AB |
| 174-13 | 9NK3100330800 | J | Screw, M3*0.5*8 | AB |
| 174-14 | 9NK3455092100 | J | Lens A Fix | AX |
| 174-15 | 9NK3455097600 | J | Rod Engine Mask | AG |
| 174-16 | 9NK3105261700 | J | Screw, M2*0.4*2 | AC |
| 174-17 | 9NK3105136100 | J | Screw, M2*0.4*1.7 | AB |
| 174-18 | 9NK3797406300 | J | Mirr A Fix Ass'y | |
| 174-19 | 9NK3105361300 | J | Screw, M2.5*0.45*1.8 | AB |
| 174-20 | 9NK3105311500 | J | Screw, M3*0.5*16 | AB |
| 174-21 | 9NK3797406200 | J | Engine Rod Holder Ass'y | |
| 174-22 | 9NK3797406400 | J | Engine Body Ass'y | |
| 174-23 | 9NK3455093800 | J | Lens A Bracket | AG |
| 174-24 | 9NK3250117500 | J | Relay Lens | BB |
| 174-25 | 9NK3105130200 | J | Screw, M2*0.4*5 | AB |
| 174-26 | 9NK3674030100 | J | Wire With Housing | AH |
| 174-27 | 9NK3462003201 | J | Spring | AC |
| 174-28 | 9NK3241500900 | J | Pad for DMD | |
| 174-29 | 9NK3241501000 | J | Pad for DMD Mount | |
| 174-30 | 9NK5600204256 | J | INDEX Unit | AT |

# CABINET AND MECHANICAL PARTS


H
G
F
E
D
C
B
A
1
2
3
4
5
6
173
172
58
45
63
89
128
78
102
55
TO 83
102-6-1
102-6
TO 83
76
81
61
102-8
102-7
102-2
102-4
102-3
102-5
102-9
135
71
186
72
163
43
162
TO 102
TO 102
83-5
83-6
83-4
83-3
83-5
83-1
83-1
83-4
83-2
16
134
64
17
117
112
159
165
35
134
b
e
184
a
18
130
99
161
S
160
1
101
156
T
158
14
R
101
153
192
h
J
i
14
180
15
193
148
73
111
19
51
23
123
185
48
83
154
G
65
84
H
10
J
140
k
68
e
11
183
12
108
79
85
138
35
132
164
127
136
2
34
27
D
C
B
A
E
a
S
R
u
t
v
w
Q
P
G
182
O
N
M
L
K
J
H
X
Y
Z
124
126
29
K
179
21
26
107
103
39
46
150
42
E
151
F
122
188
189
123
7
9
98
129
187
A
109
157
129
133
L
M
174
44
20
K
139
104
116
5
20
Q
6
4
8
170
142
114
30
119
x
191
171
32
69
C
D
167
25
97
144
143
g
155
N
28
80
40
93
96
37
95
94
169
125
13
90
77
66
70
B
f
41
120
92
55
52
3
141
38
31
137
113
146
190
13
54
33
87
91
175
149
h
J
50
131
67
181
147
i
22
152
w
75
115
69
47
110
145
121
60
86
56
100
121
82
24
53
62
57
166
36
118
176
49
177
168
105
57
74
59
106
88
178

# OPTICS MECHANISM PARTS


H
G
F
E
D
C
B
A
174-10
174-19
174-18
174-20
174-10
174-21
174-17
174-16
174-27
174-2
174-15
174-13
174-14
174-26
174-24
174-16
174-9
174-3
174-12
174-23
174-5
174-11
174-4
174-1
174-8
174-7
174-25
174-6
174-10
174-22
1
2
3
4
5
6

## SUPPLIED ACCESSORIES

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| ⚠ X1 | 9NK3090152800 | J | AC cord for US with ferrite core | AR |
| ⚠ X1 | 9NK3090152700 | J | AC cord for Europe & Korea with ferrite core | AT |
| ⚠ X1 | 9NK3090152900 | J | AC cord for UK with ferrite core | AT |
| ⚠ X1 | 9NK3090152600 | J | AC cord for Australia with ferrite core | AT |
| X2 | 9NK5041808700 | J | Remote control unit | BQ |
| X3 | 9NK3790197000 | J | Mouse receiver | BM |
| X4 | 9NK3080431000 | J | RGB cable | AX |
| X5 | 9NK3532094500 | J | CD for manual | AH |
| X6 | 9NK5010011800 | J | Operation manual | AZ |
|  | 9NK5012043600 | J | Guarantee card (for USA) | AK |
|  | 9NK5012044900 | J | ER information (for USA) | AK |
|  | 9NK5012045100 | J | Guarantee card (for Canada) | AK |
|  | 9NK5012045000 | J | ER information (for Canada) | AK |
|  | 9NK3202236400 | J | ER sticker | AC |
|  | 9NK3240992900 | J | Lens Attachment Part Cover(NL) |  |

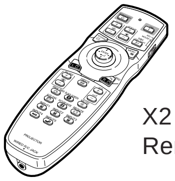
## PACKING PARTS
## *(NOT REPLACEMENT ITEM)*

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| S1 | 9NK3512277700 | J | Packing Case(L) | AX |
| S1 | 9NK3512280100 | J | Packing Case(NL) | AX |
| S2 | 9NK3510757801 | J | Accessories Case | AK |
| S3 | 9NK3500142400 | J | Buffer Material (Top) | BB |
| S4 | 9NK3500142501 | J | Buffer Material (Bottom) | BA |
| S5 | 9NK3500957300 | J | Polystylene Bag | AH |

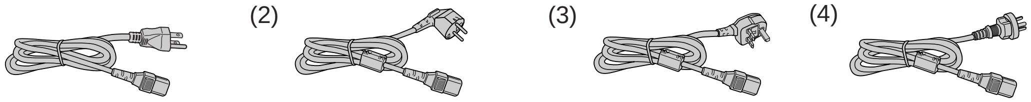
## SERVICE JIGS
### (Use For Servicing)

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
|  | 9NK5600204283 | J | Extension Cable 80pin, Main-Formatter | CH |
|  | 9NK5600204284 | J | Extension Cable 60pin, Main-Formatter | CD |
|  | 9NK5600204285 | J | Extension Cable 30pin, Terminal-PC | BT |
|  | 9NK5600204286 | J | Extension Cable 70pin, Formatter-PC | BW |
|  | 9NK5600204287 | J | Extension Cable 4pin, Color Wheel-Index | BC |
|  | 9NK5600204288 | J | Extension Cable 4pin, Fan | BB |
|  | 9NK5600204289 | J | Extension Cable 3pin, Fan | BB |
|  | 9NK5600204290 | J | Extension Cable 2pin, Thermistor | BV |

**Supplied accessories**


X2
Remote control

X1
Power cord*

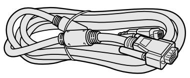

(1) For U.S., Canada, etc. (12' (3.6 m))

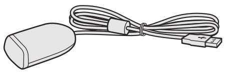
(2) For Europe, except U.K. (6' (1.8 m))

(3) For U.K., Hong Kong and Singapore (6' (1.8 m))

(4) For Australia, New Zealand and Oceania (6' (1.8 m))

*Use the power cord that corresponds to the wall outlet in your country.

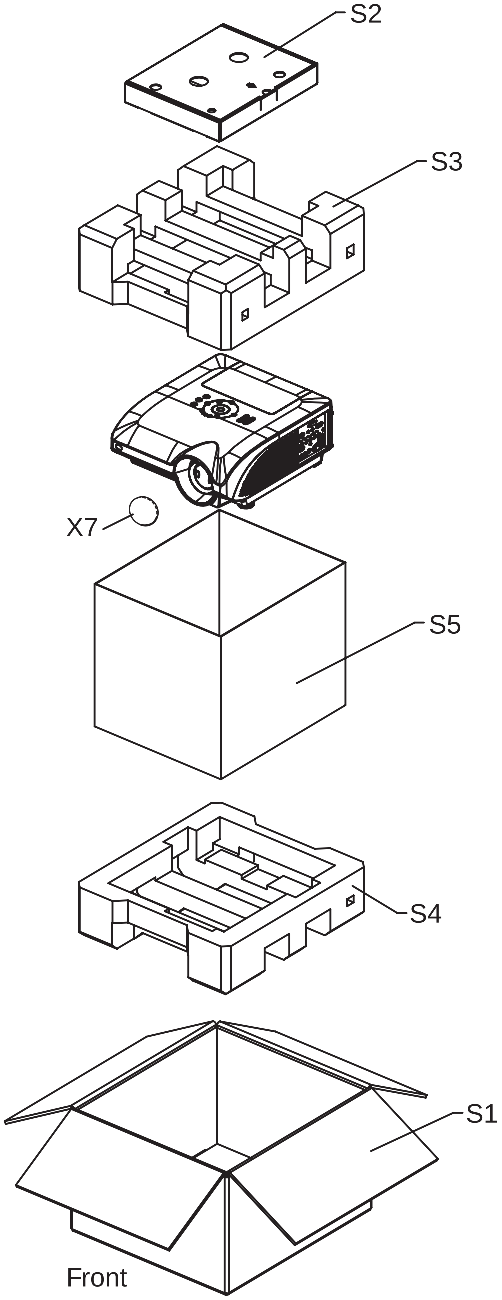

X4
RGB cable
(9'10" (3.0 m))

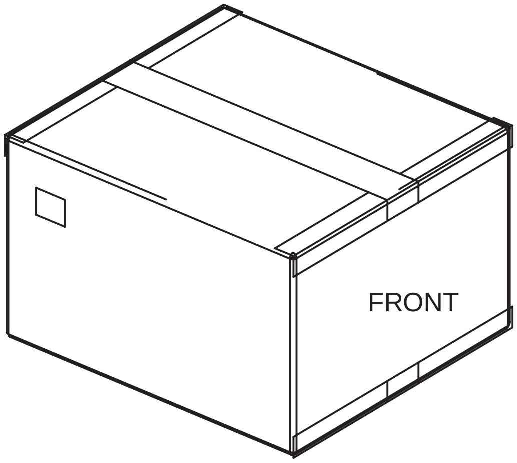

X3
Remote mouse receiver
(5'3" (1.6 m))

X5
Projector manual and technical reference CD-ROM

X6
Operation manual

# PACKING OF THE SET / VERPACKEN DES GERÄTS


S2
S3
X7
S5
S4
S1
Front



# - MEMO -

# SCHEMATIC DIAGRAM
# SCHEMATISCHER SCHALTPLAN

## MODELS XG-PH50X
## MODELLE XG-PH50X-NL

CONTENTS

Page

DESCRIPTION OF SCHEMATIC DIAGRAM .................................................... D2
MAIN UNIT .................................................................................... D3 ～ D22
TERMINAL UNIT ..............................................................................D23 ～ D26
FORMATTER UNIT ...........................................................................D27 ～ D38
PC I/F UNIT .....................................................................................D39 ～ D58
LVPS CONTROL UNIT .....................................................................D59 ～ D60
PFC CONTROL UNIT .......................................................................D61 ～ D62
FILTER UNIT ...................................................................................D63 ～ D64
POWER UNIT ...................................................................................D65 ～ D68
LAMP DETECTION SWITCH UNIT ..................................................... D69
INDEX UNIT ..................................................................................... D69
IR FRONT/REAR UNIT ..................................................................... D70
KEY PAD UNIT.................................................................................. D70
AUDIO UNIT ..................................................................................... D71

# DESCRIPTION OF SCHEMATIC DIAGRAM

## WAVEFORM MEASUREMENT CONDITION:

1. Waveforms at test points are observed at the supply voltage of AC 220V. Signals are fed by a color bar signal generator for servicing purpose.

## INDICATION OF RESISTOR & CAPACITOR:

### RESISTOR

1. The unit of resistance “Ω” is omitted. (K=kΩ=1000 Ω, M=MΩ).
2. All resistors are ± 5%, unless otherwise noted. (J= ± 5%, F= ± 1%, D= ± 0.5%)
3. All resistors are 1/10W, unless otherwise noted.

### CAPACITOR

1. All capacitors are µF, unless otherwise noted. (P=pF=µµF).
2. All capacitors are 50V, unless otherwise noted.
3. All capacitors are Ceramic type, unless otherwise noted.

| | |
|---|---|
| (ML): Mylar | (TA): Tantalum |
| (PF): Polypro Film | (ST): Styrol |

**CAUTION:**
**This circuit diagram is original one, therefore there may be a slight difference from yours.**

## SAFETY NOTES:

**1.DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.**
**2.SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.**

## IMPORTANT SAFETY NOTICE:

**PARTS MARKED WITH “⚠”( ▨ ) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.**

# BESCHREIBUNG DES SCHEMATISCHEN SCHALTPLANS

## SIGNALFORMMESSUNGEN:

1. Die Wellenformen an den Testpunkten werden bei einer Netzspannung von 220V verfolgt. Signale werden für die Wartung mit einem Farbbalken-Signal generator zugeführt.

## BEZEICHNUNG DES WIDERSTANDS UND KONDENSATORS:

### WIDERSTAND

1. Die Widerstandseinheit “Ω” wird weggelassen. (K=kΩ=1000 Ω, M=MΩ)
2. Alle Widerstände haben ± 5%, sofern nicht anders angegeben.(J= ± 5%, F= ± 1%, D= ± 0.5%)
3. Alle Widerstände haben 1/10W, sofern nicht anders angegeben.

### KONDENSATOR

1. Die Kapazitätseinheit ist µF, sofern nicht anders angegeben. (P=pF=µµF).
2. Alle Kondensatoren haben 50V, sofern nicht anders angegeben.
3. Alle Kondensatoren sind Keramiktyp, sofern nicht anders angegeben.

| | |
|---|---|
| (ML): Mylar | (TA): Tantal |
| (PF): Polyprofilm | (ST): Styrol |

**ACHTUNG:**
**Bei diesem Schaltplan handelt es sich um den ursprünglichen. Esönnen daher geringfügige Unterschiede zu dem Ihrem bestehen.**

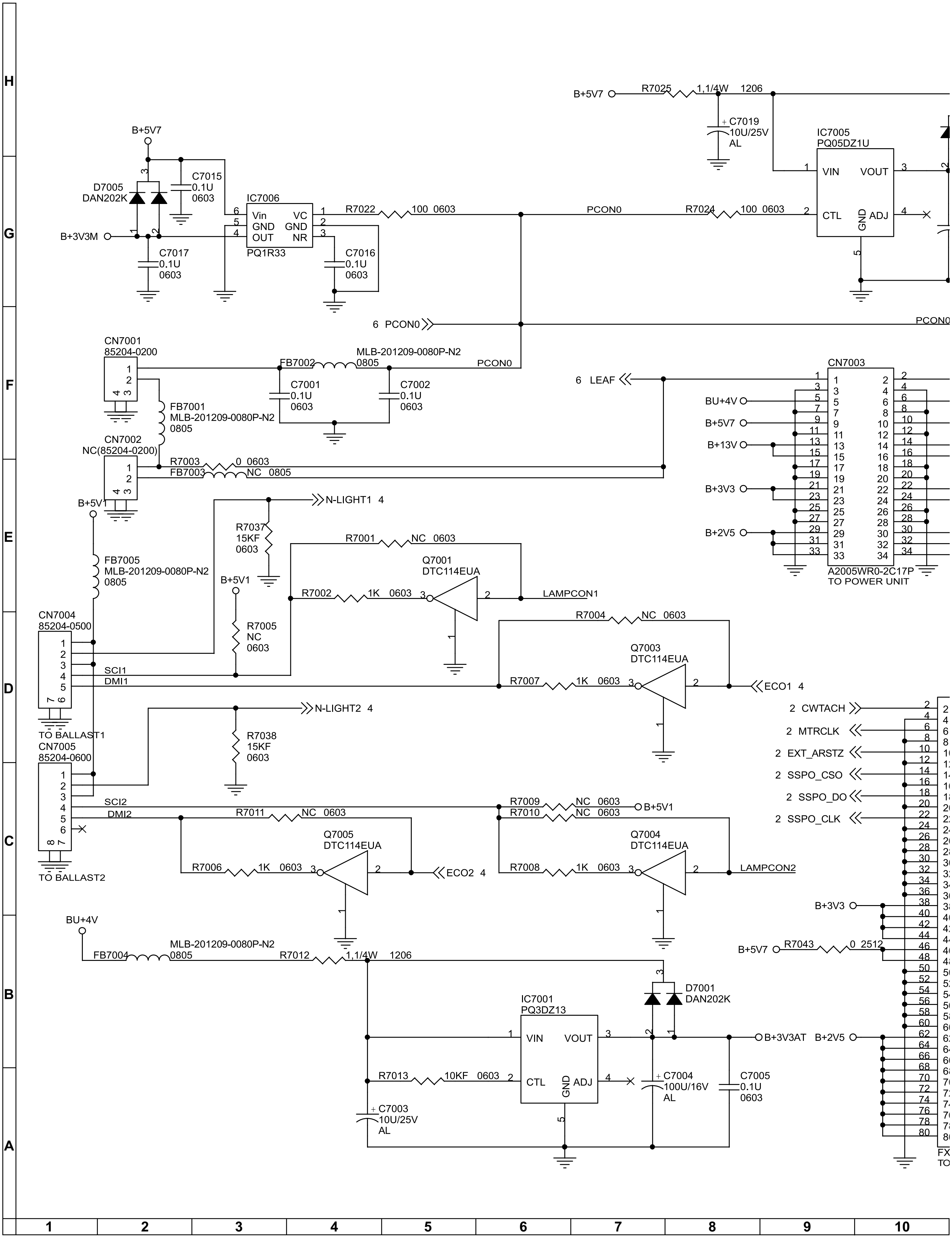
## SICHERHEITSANMERKUNGEN:

1. **VOR DEM AUSWECHSELN VON TEILEN MUSS UNBEDINGT NETZSTECKER AUS DER NETZSTECKDOSE GEZOGEN WERDEN.**
2. **DIE WARMEABLEITER DER HALBLEITER SOLLTEN BEIM BETRIEB DES CHASSIS ALS MÖGLICHE URSACHEN VON GEFÄHRLICHEN ELEKTRISCHEN SCHLÄGEN BETRACHTET WERDEN.**

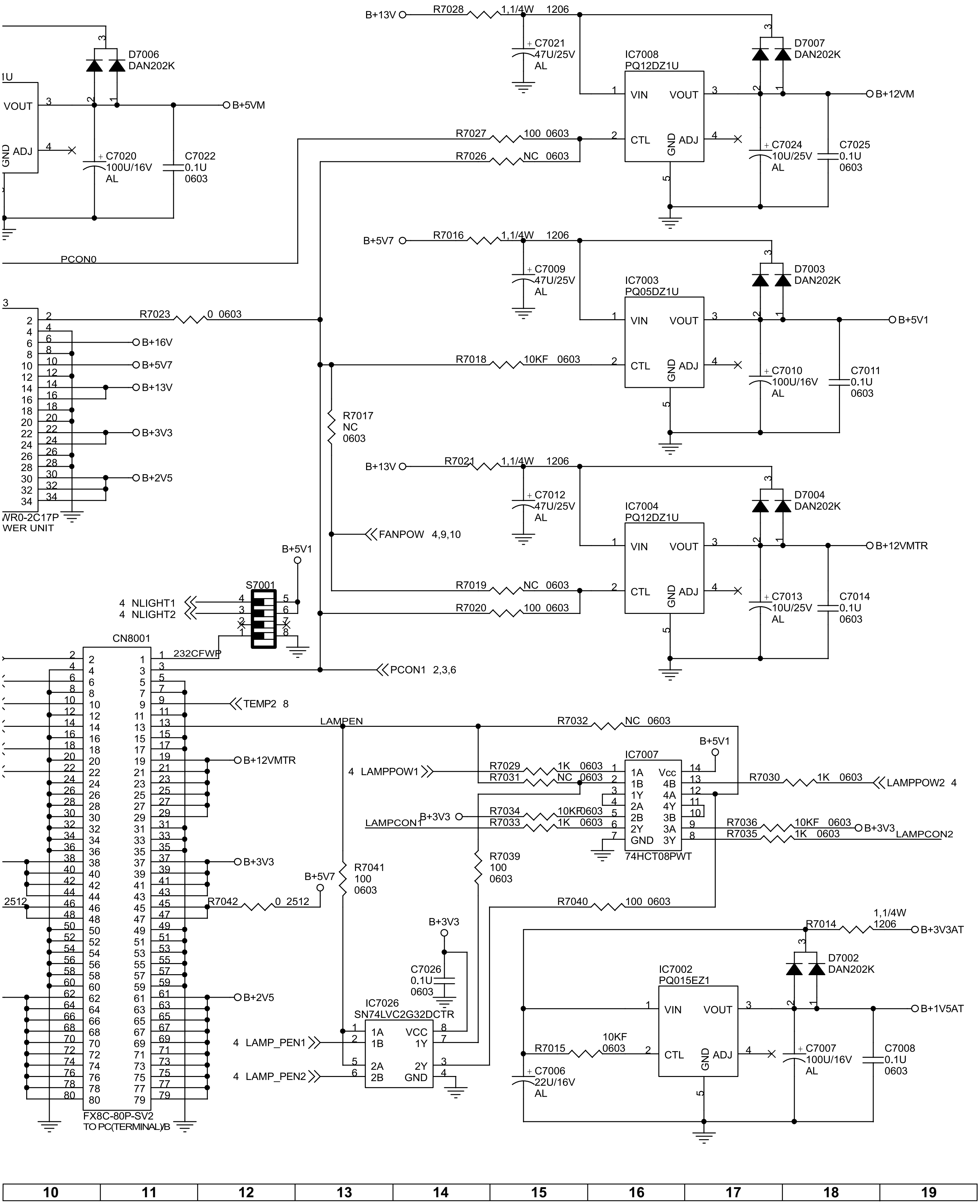
## WICHTIGE SICHERHEITSANMERKUNGEN:

**MIT “⚠”( ▨ )BEZEICHNETEN TEILE SIND BESONDERS WICHTIG FÜR DIE AUFRECHTERHALTUNG DER SICHERHEIT . BEIM WECHDIESER TEILE SOLLTEN DIE VORGESCHRIEBENEN TEILE IMMER VERWENDET WERDEN, UM SOWOHL DIE SICHERHEIT ALS AUCH DIE LEISTUNG DES GERÄTES AUFRECHTZUERHALTEN.**

# ■MAIN UNIT / HAUPTEINHEIT-1/10

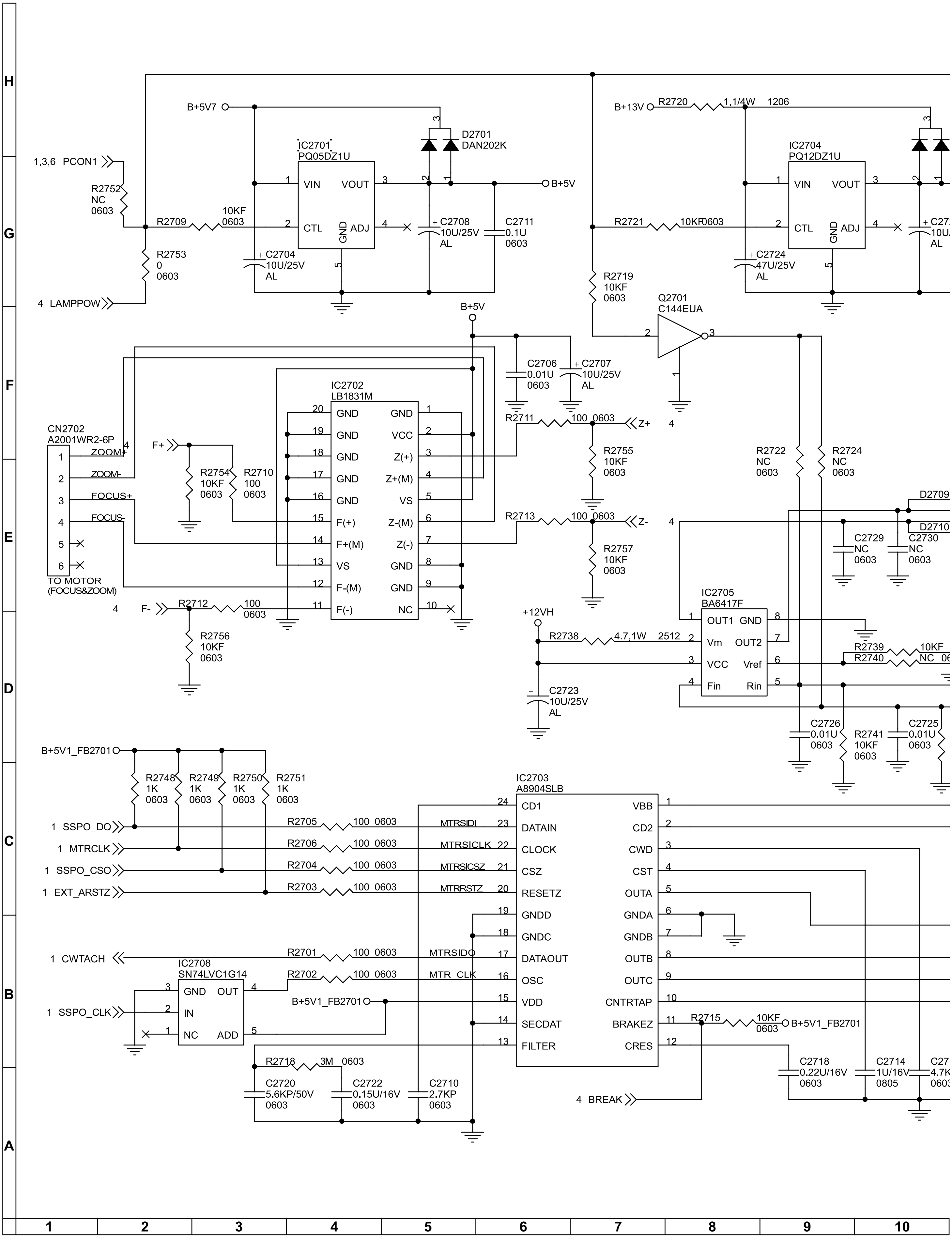


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
B+5V7
R7025
1,1/4W 1206
C7019
10U/25V
AL
IC7005
PQ05DZ1U
VIN
VOUT
CTL
ADJ
GND
B+5V7
D7005
DAN202K
C7015
0.1U
0603
IC7006
Vin
VC
GND
GND
OUT
NR
PQ1R33
R7022
100 0603
PCON0
R7024
100 0603
B+3V3M
C7017
0.1U
0603
C7016
0.1U
0603
6 PCON0
PCON0
CN7001
85204-0200
FB7002
MLB-201209-0080P-N2
0805
PCON0
C7001
0.1U
0603
C7002
0.1U
0603
FB7001
MLB-201209-0080P-N2
0805
CN7002
NC(85204-0200)
R7003
0 0603
FB7003
NC 0805
6 LEAF
CN7003
BU+4V
B+5V7
B+13V
B+3V3
B+2V5
A2005WR0-2C17P
TO POWER UNIT
B+5V1
N-LIGHT1 4
R7037
15KF
0603
R7001
NC 0603
Q7001
DTC114EUA
FB7005
MLB-201209-0080P-N2
0805
B+5V1
R7002
1K 0603
LAMPCON1
R7005
NC
0603
R7004
NC 0603
CN7004
85204-0500
Q7003
DTC114EUA
SCI1
DMI1
R7007
1K 0603
ECO1 4
TO BALLAST1
N-LIGHT2 4
2 CWTACH
2 MTRCLK
2 EXT_ARSTZ
2 SSPO_CSO
2 SSPO_DO
2 SSPO_CLK
CN7005
85204-0600
R7038
15KF
0603
SCI2
DMI2
R7011
NC 0603
R7009
NC 0603
B+5V1
R7010
NC 0603
Q7005
DTC114EUA
Q7004
DTC114EUA
R7006
1K 0603
ECO2 4
R7008
1K 0603
LAMPCON2
TO BALLAST2
B+3V3
BU+4V
FB7004
MLB-201209-0080P-N2
0805
R7012
1,1/4W 1206
B+5V7
R7043
0 2512
D7001
DAN202K
IC7001
PQ3DZ13
VIN
VOUT
CTL
ADJ
GND
B+3V3AT
B+2V5
R7013
10KF 0603
C7004
100U/16V
AL
C7005
0.1U
0603
C7003
10U/25V
AL
FX
TO

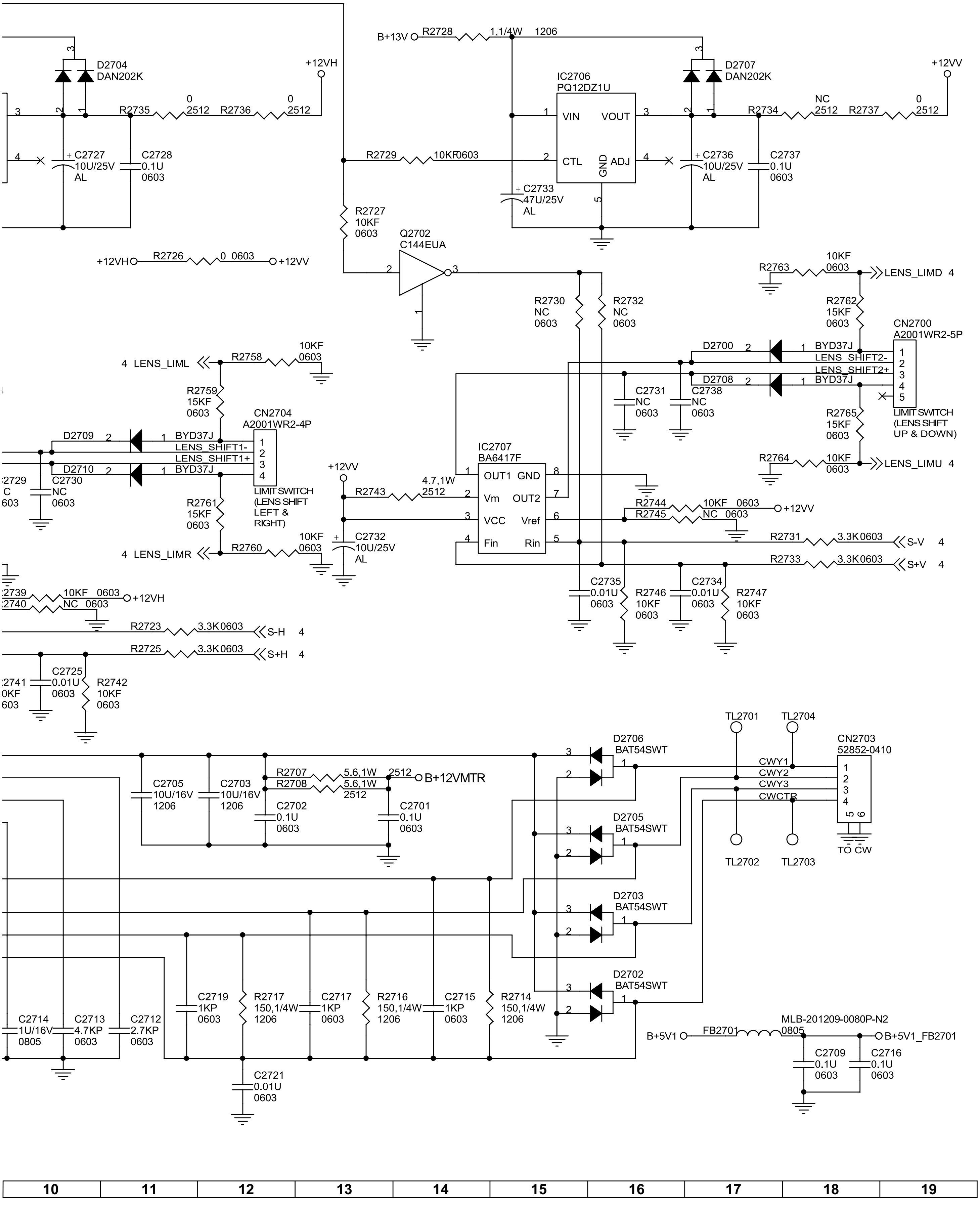


B+13V
R7028 1,1/4W 1206
C7021 47U/25V AL
IC7008 PQ12DZ1U
VIN VOUT CTL GND ADJ
D7007 DAN202K
C7024 10U/25V AL
C7025 0.1U 0603
B+12VM
R7027 100 0603
R7026 NC 0603
D7006 DAN202K
VOUT ADJ GND
C7020 100U/16V AL
C7022 0.1U 0603
B+5VM
PCON0
B+5V7
R7016 1,1/4W 1206
C7009 47U/25V AL
IC7003 PQ05DZ1U
D7003 DAN202K
B+5V1
R7023 0 0603
R7018 10KF 0603
C7010 100U/16V AL
C7011 0.1U 0603
R7017 NC 0603
B+16V
B+5V7
B+13V
B+3V3
B+2V5
WR0-2C17P
WER UNIT
R7021 1,1/4W 1206
C7012 47U/25V AL
IC7004 PQ12DZ1U
D7004 DAN202K
B+12VMTR
FANPOW 4,9,10
R7019 NC 0603
R7020 100 0603
C7013 10U/25V AL
C7014 0.1U 0603
B+5V1
S7001
4 NLIGHT1
4 NLIGHT2
CN8001
232CFWP
PCON1 2,3,6
TEMP2 8
LAMPEN
R7032 NC 0603
IC7007
B+5V1
4 LAMPPOW1
R7029 1K 0603
R7031 NC 0603
R7030 1K 0603
LAMPPOW2 4
B+3V3
R7034 10KF 0603
R7033 1K 0603
LAMPCON1
R7036 10KF 0603
R7035 1K 0603
B+3V3
LAMPCON2
1A 1B 1Y 2A 2B 2Y GND Vcc 4B 4A 4Y 3B 3A 3Y
74HCT08PWT
B+12VMTR
B+3V3
R7039 100 0603
R7041 100 0603
B+5V7
2512
R7042 0 2512
R7040 100 0603
B+3V3
C7026 0.1U 0603
IC7026 SN74LVC2G32DCTR
1A 1B 2A 2B VCC 1Y 2Y GND
4 LAMP_PEN1
4 LAMP_PEN2
B+2V5
FX8C-80P-SV2
TO PC(TERMINAL)B
R7014 1,1/4W 1206
B+3V3AT
D7002 DAN202K
IC7002 PQ015EZ1
VIN VOUT CTL GND ADJ
B+1V5AT
R7015 10KF 0603
C7006 22U/16V AL
C7007 100U/16V AL
C7008 0.1U 0603
10 11 12 13 14 15 16 17 18 19

# ■MAIN UNIT / HAUPTEINHEIT-2/10

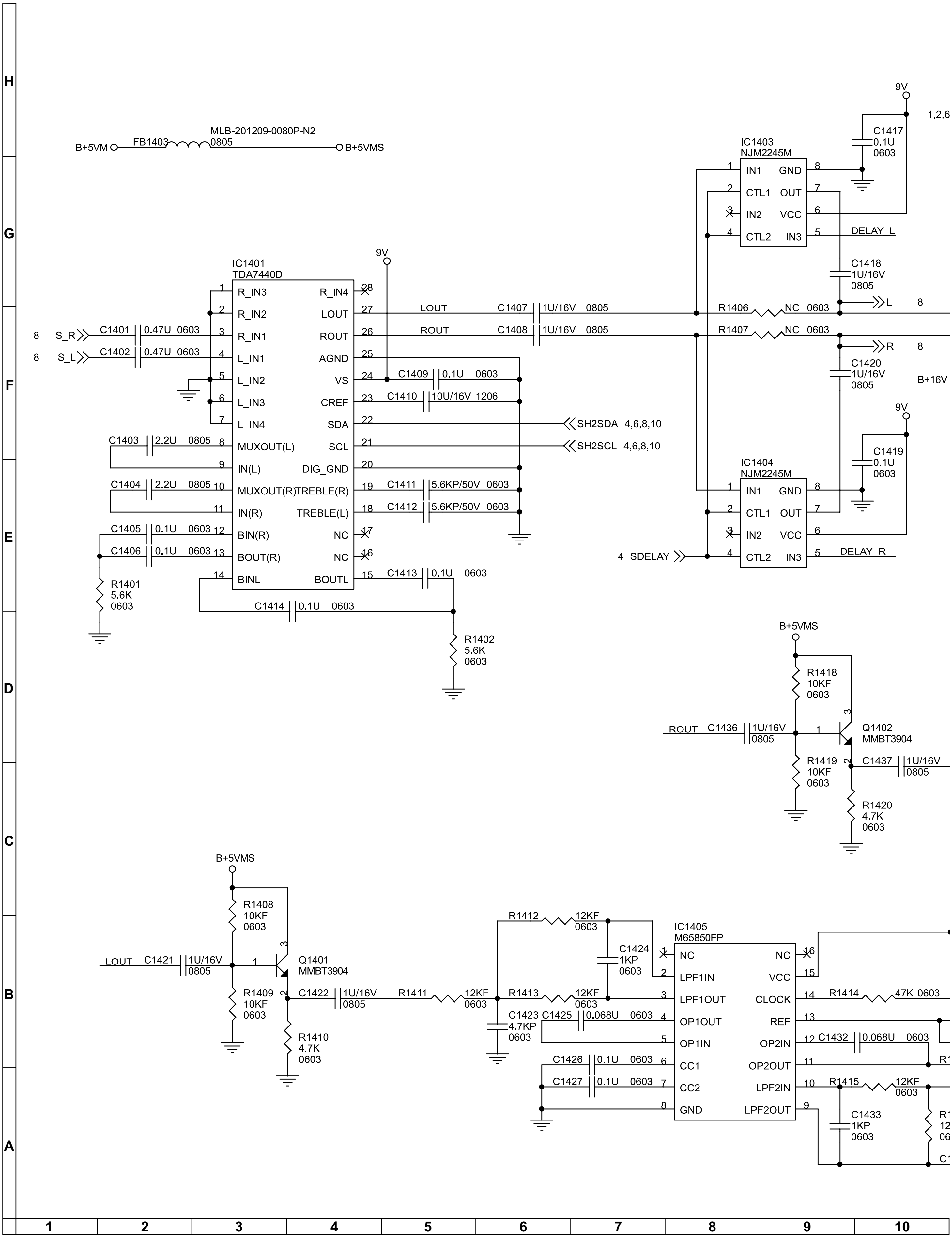


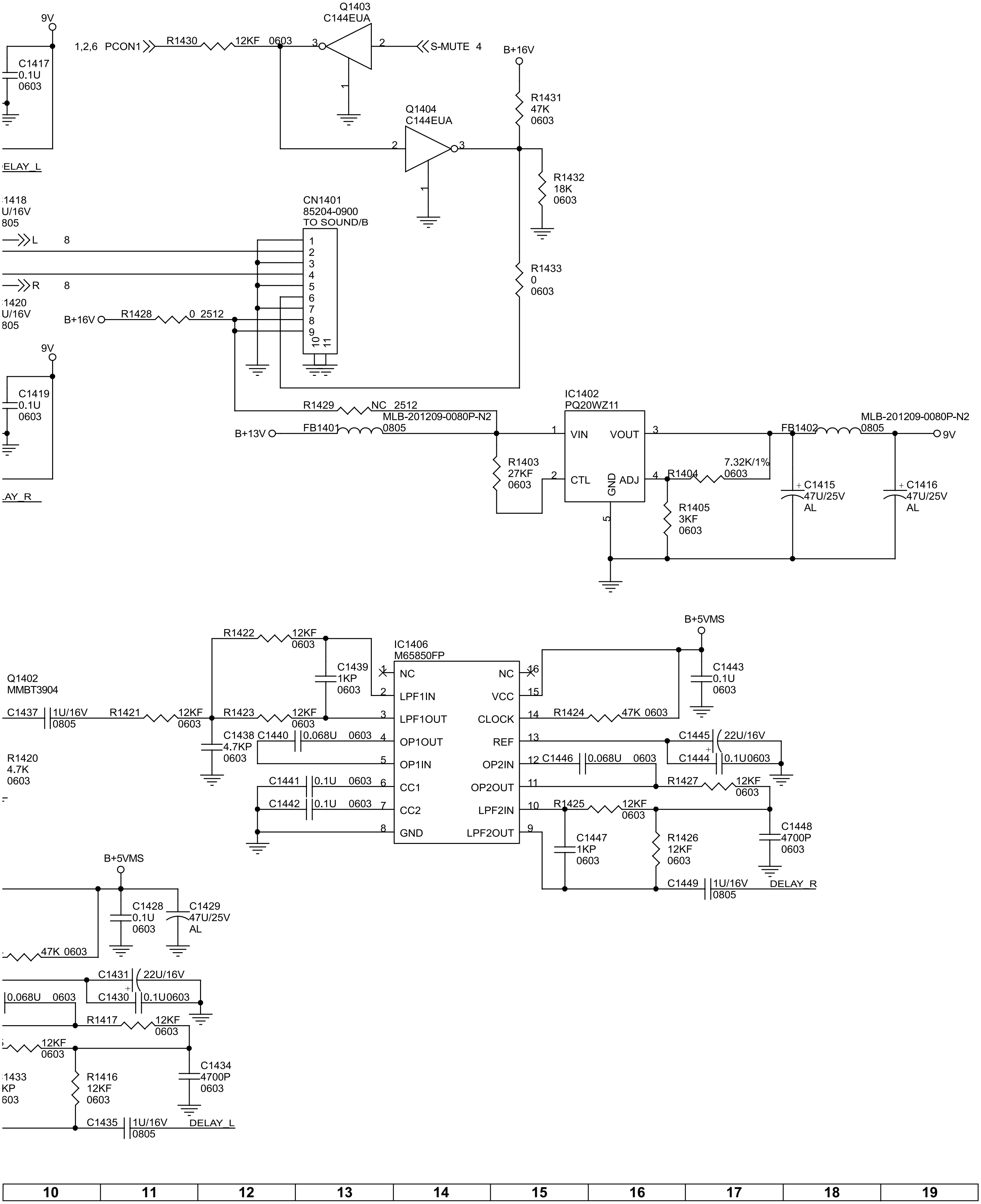
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
B+5V7
D2701
DAN202K
IC2701
PQ05DZ1U
VIN
VOUT
CTL
GND
ADJ
B+5V
1,3,6 PCON1
R2752
NC
0603
R2709
10KF
0603
C2708
10U/25V
AL
C2711
0.1U
0603
C2704
10U/25V
AL
R2753
0
0603
4 LAMPPOW
B+13V
R2720
1,1/4W 1206
IC2704
PQ12DZ1U
R2721
10KF0603
C2724
47U/25V
AL
R2719
10KF
0603
Q2701
C144EUA
C2706
0.01U
0603
C2707
10U/25V
AL
IC2702
LB1831M
GND
VCC
Z(+)
Z+(M)
VS
F(+)
Z-(M)
F+(M)
Z(-)
F-(M)
F(-)
NC
CN2702
A2001WR2-6P
ZOOM+
ZOOM-
FOCUS+
FOCUS-
TO MOTOR
(FOCUS&ZOOM)
F+
R2754
10KF
0603
R2710
100
0603
4 F-
R2712
100
0603
R2756
10KF
0603
R2711
100 0603
Z+ 4
R2755
10KF
0603
R2713
100 0603
Z- 4
R2757
10KF
0603
R2722
NC
0603
R2724
NC
0603
D2709
D2710
C2729
NC
0603
C2730
NC
0603
IC2705
BA6417F
OUT1
GND
Vm
OUT2
VCC
Vref
Fin
Rin
+12VH
R2738
4.7,1W 2512
C2723
10U/25V
AL
R2739
10KF
R2740
NC
C2726
0.01U
0603
R2741
10KF
0603
C2725
0.01U
0603
B+5V1_FB2701
R2748
1K
0603
R2749
1K
0603
R2750
1K
0603
R2751
1K
0603
IC2703
A8904SLB
1 SSPO_DO
1 MTRCLK
1 SSPO_CSO
1 EXT_ARSTZ
R2705
R2706
R2704
R2703
100 0603
MTRSIDI
MTRSICLK
MTRSICSZ
MTRRSTZ
CD1
DATAIN
CLOCK
CSZ
RESETZ
GNDD
GNDC
DATAOUT
OSC
VDD
SECDAT
FILTER
VBB
CD2
CWD
CST
OUTA
GNDA
GNDB
OUTB
OUTC
CNTRTAP
BRAKEZ
CRES
1 CWTACH
R2701
MTRSIDO
IC2708
SN74LVC1G14
GND
OUT
IN
NC
ADD
1 SSPO_CLK
R2702
MTR_CLK
B+5V1_FB2701
R2715
10KF
0603
B+5V1_FB2701
R2718
3M 0603
C2720
5.6KP/50V
0603
C2722
0.15U/16V
0603
C2710
2.7KP
0603
4 BREAK
C2718
0.22U/16V
0603
C2714
1U/16V
0805
C27
4.7K
060



D2704
DAN202K
+12VH
R2735 0 2512
R2736 0 2512
C2727 10U/25V AL
C2728 0.1U 0603
B+13V
R2728 1,1/4W 1206
IC2706 PQ12DZ1U
VIN
VOUT
CTL
GND
ADJ
C2733 47U/25V AL
D2707 DAN202K
+12VV
R2734 NC 2512
R2737 0 2512
C2736 10U/25V AL
C2737 0.1U 0603
R2729 10KF 0603
R2727 10KF 0603
Q2702 C144EUA
R2726 0 0603
R2763 10KF 0603
LENS_LIMD 4
R2762 15KF 0603
R2730 NC 0603
R2732 NC 0603
CN2700 A2001WR2-5P
D2700 BYD37J
LENS_SHIFT2-
LENS_SHIFT2+
D2708 BYD37J
C2731 NC 0603
C2738 NC 0603
LIMIT SWITCH (LENS SHIFT UP & DOWN)
R2765 15KF 0603
R2764 10KF 0603
LENS_LIMU 4
4 LENS_LIML
R2758 10KF 0603
R2759 15KF 0603
CN2704 A2001WR2-4P
D2709 BYD37J
LENS_SHIFT1-
LENS_SHIFT1+
D2710 BYD37J
2729 C 603
C2730 NC 0603
LIMIT SWITCH (LENS SHIFT LEFT & RIGHT)
R2761 15KF 0603
4 LENS_LIMR
R2760 10KF 0603
+12VV
R2743 4.7,1W 2512
C2732 10U/25V AL
IC2707 BA6417F
OUT1
GND
Vm
OUT2
VCC
Vref
Fin
Rin
R2744 10KF 0603
R2745 NC 0603
R2731 3.3K 0603
S-V 4
R2733 3.3K 0603
S+V 4
C2735 0.01U 0603
R2746 10KF 0603
C2734 0.01U 0603
R2747 10KF 0603
2739 10KF 0603 +12VH
2740 NC 0603
R2723 3.3K 0603 S-H 4
R2725 3.3K 0603 S+H 4
2741 0KF 603
C2725 0.01U 0603
R2742 10KF 0603
TL2701
TL2704
CN2703 52852-0410
D2706 BAT54SWT
CWY1
CWY2
CWY3
CWCTR
TO CW
TL2702
TL2703
C2705 10U/16V 1206
C2703 10U/16V 1206
R2707 5.6,1W 2512
R2708 5.6,1W 2512
B+12VMTR
C2702 0.1U 0603
C2701 0.1U 0603
D2705 BAT54SWT
D2703 BAT54SWT
D2702 BAT54SWT
C2719 1KP 0603
R2717 150,1/4W 1206
C2717 1KP 0603
R2716 150,1/4W 1206
C2715 1KP 0603
R2714 150,1/4W 1206
C2714 1U/16V 0805
C2713 4.7KP 0603
C2712 2.7KP 0603
C2721 0.01U 0603
B+5V1
FB2701
MLB-201209-0080P-N2 0805
B+5V1_FB2701
C2709 0.1U 0603
C2716 0.1U 0603
10
11
12
13
14
15
16
17
18
19

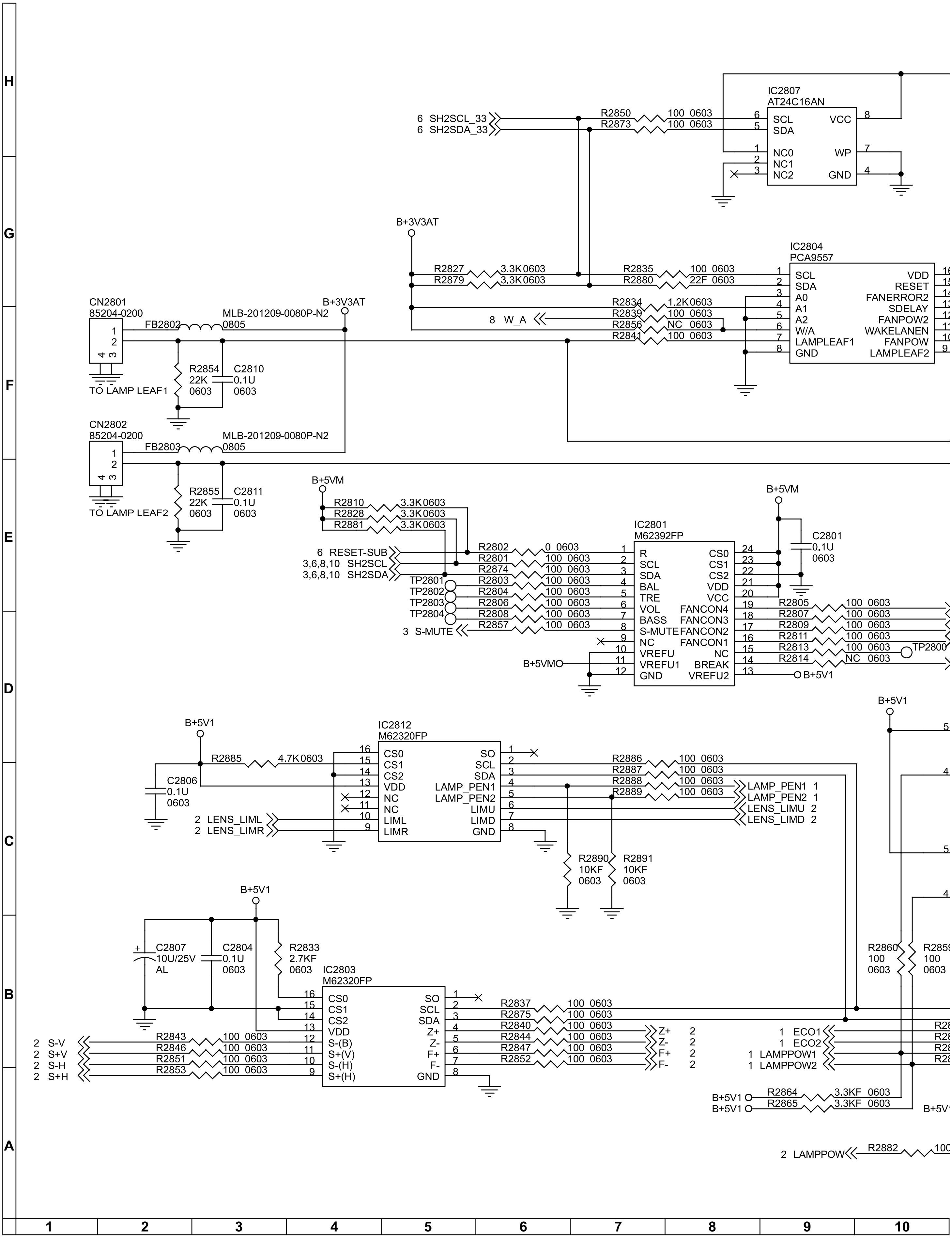
# ■MAIN UNIT / HAUPTEINHEIT-3/10


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
B+5VM
FB1403
MLB-201209-0080P-N2
0805
B+5VMS
IC1401
TDA7440D
R_IN3
R_IN2
R_IN1
L_IN1
L_IN2
L_IN3
L_IN4
MUXOUT(L)
IN(L)
MUXOUT(R)
IN(R)
BIN(R)
BOUT(R)
BINL
R_IN4
LOUT
ROUT
AGND
VS
CREF
SDA
SCL
DIG_GND
TREBLE(R)
TREBLE(L)
NC
NC
BOUTL
9V
8 S_R
8 S_L
C1401 0.47U 0603
C1402 0.47U 0603
C1403 2.2U 0805
C1404 2.2U 0805
C1405 0.1U 0603
C1406 0.1U 0603
R1401 5.6K 0603
C1407 1U/16V 0805
C1408 1U/16V 0805
C1409 0.1U 0603
C1410 10U/16V 1206
C1411 5.6KP/50V 0603
C1412 5.6KP/50V 0603
C1413 0.1U 0603
C1414 0.1U 0603
R1402 5.6K 0603
SH2SDA 4,6,8,10
SH2SCL 4,6,8,10
LOUT
ROUT
R1406 NC 0603
R1407 NC 0603
L 8
R 8
B+16V
1,2,6
IC1403
NJM2245M
IN1
CTL1
IN2
CTL2
GND
OUT
VCC
IN3
C1417 0.1U 0603
DELAY_L
C1418 1U/16V 0805
C1420 1U/16V 0805
IC1404
NJM2245M
C1419 0.1U 0603
DELAY_R
4 SDELAY
B+5VMS
R1418 10KF 0603
ROUT
C1436 1U/16V 0805
Q1402 MMBT3904
R1419 10KF 0603
C1437 1U/16V 0805
R1420 4.7K 0603
B+5VMS
R1408 10KF 0603
LOUT
C1421 1U/16V 0805
Q1401 MMBT3904
R1409 10KF 0603
C1422 1U/16V 0805
R1410 4.7K 0603
R1411 12KF 0603
R1412 12KF 0603
C1424 1KP 0603
R1413 12KF 0603
C1423 4.7KP 0603
C1425 0.068U 0603
C1426 0.1U 0603
C1427 0.1U 0603
IC1405
M65850FP
NC
LPF1IN
LPF1OUT
OP1OUT
OP1IN
CC1
CC2
GND
NC
VCC
CLOCK
REF
OP2IN
OP2OUT
LPF2IN
LPF2OUT
R1414 47K 0603
C1432 0.068U 0603
R1415 12KF 0603
C1433 1KP 0603

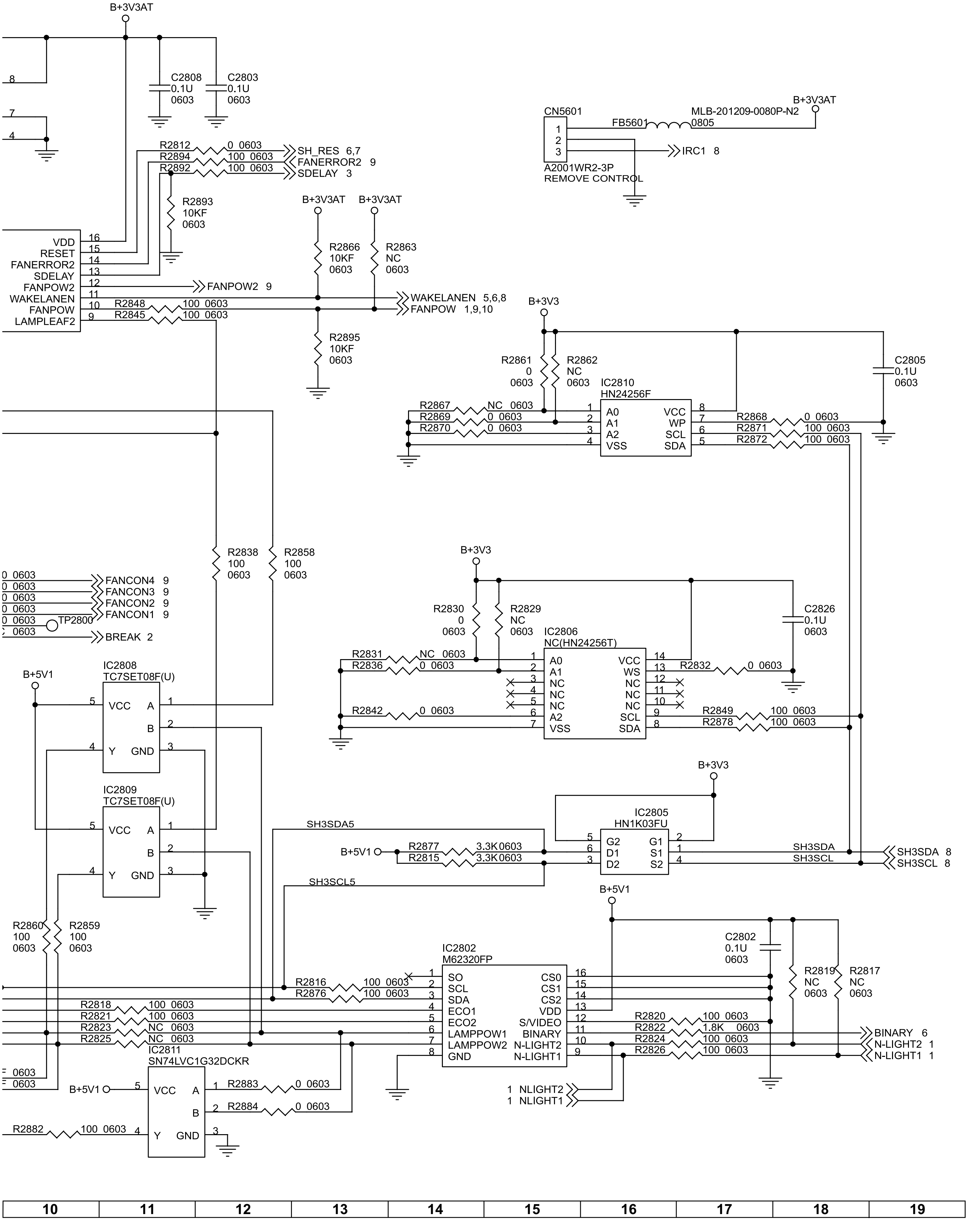


9V
C1417
0.1U
0603
ELAY_L
1418
U/16V
805
L 8
R 8
1420
U/16V
805
9V
C1419
0.1U
0603
AY_R
1,2,6 PCON1
R1430
12KF 0603
Q1403
C144EUA
3
2
1
S-MUTE 4
Q1404
C144EUA
2
3
1
B+16V
R1431
47K
0603
R1432
18K
0603
R1433
0
0603
CN1401
85204-0900
TO SOUND/B
1
2
3
4
5
6
7
8
9
10
11
B+16V
R1428
0 2512
R1429
NC 2512
MLB-201209-0080P-N2
B+13V
FB1401
0805
R1403
27KF
0603
IC1402
PQ20WZ11
1 VIN
VOUT 3
2 CTL
ADJ 4
GND
5
R1404
7.32K/1%
0603
R1405
3KF
0603
FB1402
MLB-201209-0080P-N2
0805
9V
C1415
47U/25V
AL
C1416
47U/25V
AL
Q1402
MMBT3904
C1437
1U/16V
0805
R1421
12KF
0603
R1420
4.7K
0603
R1422
12KF
0603
C1439
1KP
0603
R1423
12KF
0603
C1438
4.7KP
0603
C1440
0.068U 0603
C1441
0.1U 0603
C1442
0.1U 0603
IC1406
M65850FP
1 NC
2 LPF1IN
3 LPF1OUT
4 OP1OUT
5 OP1IN
6 CC1
7 CC2
8 GND
NC 16
VCC 15
CLOCK 14
REF 13
OP2IN 12
OP2OUT 11
LPF2IN 10
LPF2OUT 9
B+5VMS
C1443
0.1U
0603
R1424
47K 0603
C1445
22U/16V
C1444
0.1U0603
C1446
0.068U 0603
R1427
12KF
0603
R1425
12KF
0603
C1447
1KP
0603
R1426
12KF
0603
C1448
4700P
0603
C1449
1U/16V
0805
DELAY_R
B+5VMS
C1428
0.1U
0603
C1429
47U/25V
AL
47K 0603
C1431
22U/16V
C1430
0.1U0603
0.068U 0603
R1417
12KF
0603
12KF
0603
1433
KP
603
R1416
12KF
0603
C1434
4700P
0603
C1435
1U/16V
0805
DELAY_L
10
11
12
13
14
15
16
17
18
19

# ■MAIN UNIT / HAUPTEINHEIT-4/10

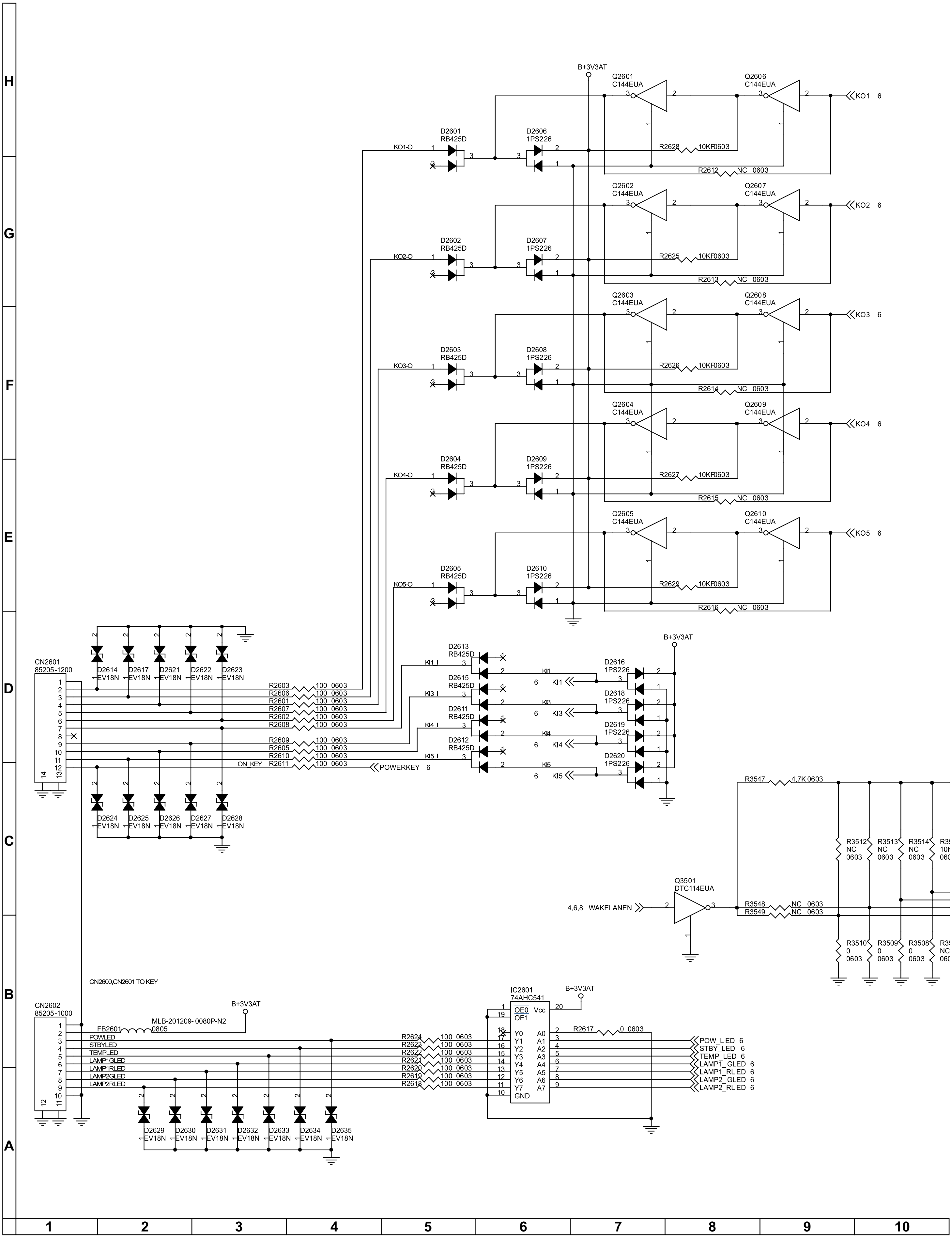


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
IC2807
AT24C16AN
SCL
SDA
NC0
NC1
NC2
VCC
WP
GND
6 SH2SCL_33
6 SH2SDA_33
R2850 100 0603
R2873 100 0603
B+3V3AT
IC2804
PCA9557
SCL
SDA
A0
A1
A2
W/A
LAMPLEAF1
GND
VDD
RESET
FANERROR2
SDELAY
FANPOW2
WAKELANEN
FANPOW
LAMPLEAF2
R2827 3.3K 0603
R2879 3.3K 0603
R2835 100 0603
R2880 22F 0603
R2834 1.2K 0603
R2839 100 0603
R2856 NC 0603
R2841 100 0603
8 W_A
CN2801
85204-0200
FB2802
MLB-201209-0080P-N2
0805
R2854 22K 0603
C2810 0.1U 0603
TO LAMP LEAF1
CN2802
85204-0200
FB2803
MLB-201209-0080P-N2
0805
R2855 22K 0603
C2811 0.1U 0603
TO LAMP LEAF2
B+5VM
R2810 3.3K 0603
R2828 3.3K 0603
R2881 3.3K 0603
6 RESET-SUB
3,6,8,10 SH2SCL
3,6,8,10 SH2SDA
TP2801
TP2802
TP2803
TP2804
3 S-MUTE
R2802 0 0603
R2801 100 0603
R2874 100 0603
R2803 100 0603
R2804 100 0603
R2806 100 0603
R2808 100 0603
R2857 100 0603
IC2801
M62392FP
R
SCL
SDA
BAL
TRE
VOL
BASS
S-MUTE
NC
VREFU
VREFU1
GND
CS0
CS1
CS2
VDD
VCC
FANCON4
FANCON3
FANCON2
FANCON1
NC
BREAK
VREFU2
B+5VM
C2801 0.1U 0603
R2805 100 0603
R2807 100 0603
R2809 100 0603
R2811 100 0603
R2813 100 0603
R2814 NC 0603
TP2800
B+5VMO
B+5V1
IC2812
M62320FP
CS0
CS1
CS2
VDD
NC
NC
LIML
LIMR
SO
SCL
SDA
LAMP_PEN1
LAMP_PEN2
LIMU
LIMD
GND
B+5V1
R2885 4.7K 0603
C2806 0.1U 0603
2 LENS_LIML
2 LENS_LIMR
R2886 100 0603
R2887 100 0603
R2888 100 0603
R2889 100 0603
LAMP_PEN1 1
LAMP_PEN2 1
LENS_LIMU 2
LENS_LIMD 2
R2890 10KF 0603
R2891 10KF 0603
B+5V1
B+5V1
C2807 10U/25V AL
C2804 0.1U 0603
R2833 2.7KF 0603
IC2803
M62320FP
CS0
CS1
CS2
VDD
S-(B)
S+(V)
S-(H)
S+(H)
SO
SCL
SDA
Z+
Z-
F+
F-
GND
2 S-V
2 S+V
2 S-H
2 S+H
R2843 100 0603
R2846 100 0603
R2851 100 0603
R2853 100 0603
R2837 100 0603
R2875 100 0603
R2840 100 0603
R2844 100 0603
R2847 100 0603
R2852 100 0603
Z+ 2
Z- 2
F+ 2
F- 2
1 ECO1
1 ECO2
1 LAMPPOW1
1 LAMPPOW2
R2860 100 0603
R2859 100 0603
B+5V1
R2864 3.3KF 0603
B+5V1
R2865 3.3KF 0603
B+5V1
2 LAMPPOW
R2882 100


B+3V3AT
C2808
0.1U
0603
C2803
0.1U
0603
8
7
4
R2812 0 0603
SH_RES 6,7
R2894 100 0603
FANERROR2 9
R2892 100 0603
SDELAY 3
R2893
10KF
0603
VDD 16
RESET 15
FANERROR2 14
SDELAY 13
FANPOW2 12
WAKELANEN 11
FANPOW 10
LAMPLEAF2 9
FANPOW2 9
R2848 100 0603
R2845 100 0603
B+3V3AT
B+3V3AT
R2866
10KF
0603
R2863
NC
0603
WAKELANEN 5,6,8
FANPOW 1,9,10
R2895
10KF
0603
CN5601
1
2
3
A2001WR2-3P
REMOVE CONTROL
FB5601
MLB-201209-0080P-N2
0805
B+3V3AT
IRC1 8
B+3V3
R2861
0
0603
R2862
NC
0603
IC2810
HN24256F
C2805
0.1U
0603
R2867 NC 0603
R2869 0 0603
R2870 0 0603
1 A0
2 A1
3 A2
4 VSS
VCC 8
WP 7
SCL 6
SDA 5
R2868 0 0603
R2871 100 0603
R2872 100 0603
R2838
100
0603
R2858
100
0603
0 0603
0 0603
0 0603
0 0603
0 0603
0603
FANCON4 9
FANCON3 9
FANCON2 9
FANCON1 9
TP2800
BREAK 2
B+3V3
R2830
0
0603
R2829
NC
0603
IC2806
NC(HN24256T)
C2826
0.1U
0603
R2831 NC 0603
R2836 0 0603
R2842 0 0603
1 A0
2 A1
3 NC
4 NC
5 NC
6 A2
7 VSS
VCC 14
WS 13
NC 12
NC 11
NC 10
SCL 9
SDA 8
R2832 0 0603
R2849 100 0603
R2878 100 0603
B+5V1
IC2808
TC7SET08F(U)
5 VCC
A 1
B 2
4 Y
GND 3
IC2809
TC7SET08F(U)
5 VCC
A 1
B 2
4 Y
GND 3
B+3V3
IC2805
HN1K03FU
5 G2
6 D1
3 D2
G1 2
S1 1
S2 4
SH3SDA5
B+5V1
R2877 3.3K 0603
R2815 3.3K 0603
SH3SDA
SH3SCL
SH3SDA 8
SH3SCL 8
SH3SCL5
B+5V1
C2802
0.1U
0603
R2860
100
0603
R2859
100
0603
IC2802
M62320FP
R2816 100 0603
R2876 100 0603
R2818 100 0603
R2821 100 0603
R2823 NC 0603
R2825 NC 0603
1 SO
2 SCL
3 SDA
4 ECO1
5 ECO2
6 LAMPPOW1
7 LAMPPOW2
8 GND
CS0 16
CS1 15
CS2 14
VDD 13
S/VIDEO 12
BINARY 11
N-LIGHT2 10
N-LIGHT1 9
R2819
NC
0603
R2817
NC
0603
R2820 100 0603
R2822 1.8K 0603
R2824 100 0603
R2826 100 0603
BINARY 6
N-LIGHT2 1
N-LIGHT1 1
1 NLIGHT2
1 NLIGHT1
IC2811
SN74LVC1G32DCKR
B+5V1
5 VCC
A 1
B 2
4 Y
GND 3
R2883 0 0603
R2884 0 0603
R2882 100 0603
0603
0603
10
11
12
13
14
15
16
17
18
19

D10

# ■MAIN UNIT / HAUPTEINHEIT-5/10

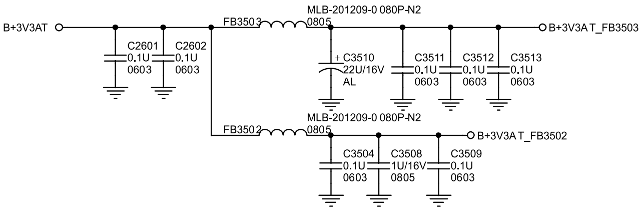


B+3V3AT
Q2601 C144EUA
Q2606 C144EUA
KO1 6
D2601 RB425D
D2606 1PS226
KO1-O
R2628 10KF0603
R2612 NC 0603
Q2602 C144EUA
Q2607 C144EUA
KO2 6
D2602 RB425D
D2607 1PS226
KO2-O
R2625 10KF0603
R2613 NC 0603
Q2603 C144EUA
Q2608 C144EUA
KO3 6
D2603 RB425D
D2608 1PS226
KO3-O
R2626 10KF0603
R2614 NC 0603
Q2604 C144EUA
Q2609 C144EUA
KO4 6
D2604 RB425D
D2609 1PS226
KO4-O
R2627 10KF0603
R2615 NC 0603
Q2605 C144EUA
Q2610 C144EUA
KO5 6
D2605 RB425D
D2610 1PS226
KO5-O
R2629 10KF0603
R2616 NC 0603
CN2601 85205-1200
D2614 EV18N
D2617 EV18N
D2621 EV18N
D2622 EV18N
D2623 EV18N
R2603 100 0603
R2606 100 0603
R2601 100 0603
R2607 100 0603
R2602 100 0603
R2608 100 0603
R2609 100 0603
R2605 100 0603
R2610 100 0603
ON_KEY R2611 100 0603
POWERKEY 6
D2613 RB425D
D2615 RB425D
D2611 RB425D
D2612 RB425D
KI1 I
KI3 I
KI4 I
KI5 I
KI1 6
KI3 6
KI4 6
KI5 6
D2616 1PS226
D2618 1PS226
D2619 1PS226
D2620 1PS226
D2624 EV18N
D2625 EV18N
D2626 EV18N
D2627 EV18N
D2628 EV18N
R3547 4.7K 0603
R3512 NC 0603
R3513 NC 0603
R3514 NC 0603
R35 10k 060
Q3501 DTC114EUA
4,6,8 WAKELANEN
R3548 NC 0603
R3549 NC 0603
R3510 0 0603
R3509 0 0603
R3508 0 0603
R35 NC 060
CN2600,CN2601 TO KEY
CN2602 85205-1000
FB2601 MLB-201209- 0080P-N2 0805
B+3V3AT
POWLED
STBYLED
TEMPLED
LAMP1GLED
LAMP1RLED
LAMP2GLED
LAMP2RLED
IC2601 74AHC541
OE0 OE1 Vcc Y0 Y1 Y2 Y3 Y4 Y5 Y6 Y7 GND A0 A1 A2 A3 A4 A5 A6 A7
R2624 100 0603
R2623 100 0603
R2622 100 0603
R2621 100 0603
R2620 100 0603
R2619 100 0603
R2618 100 0603
R2617 0 0603
POW_LED 6
STBY_LED 6
TEMP_LED 6
LAMP1_GLED 6
LAMP1_RLED 6
LAMP2_GLED 6
LAMP2_RLED 6
D2629 EV18N
D2630 EV18N
D2631 EV18N
D2632 EV18N
D2633 EV18N
D2634 EV18N
D2635 EV18N
H G F E D C B A
1 2 3 4 5 6 7 8 9 10

O1 6

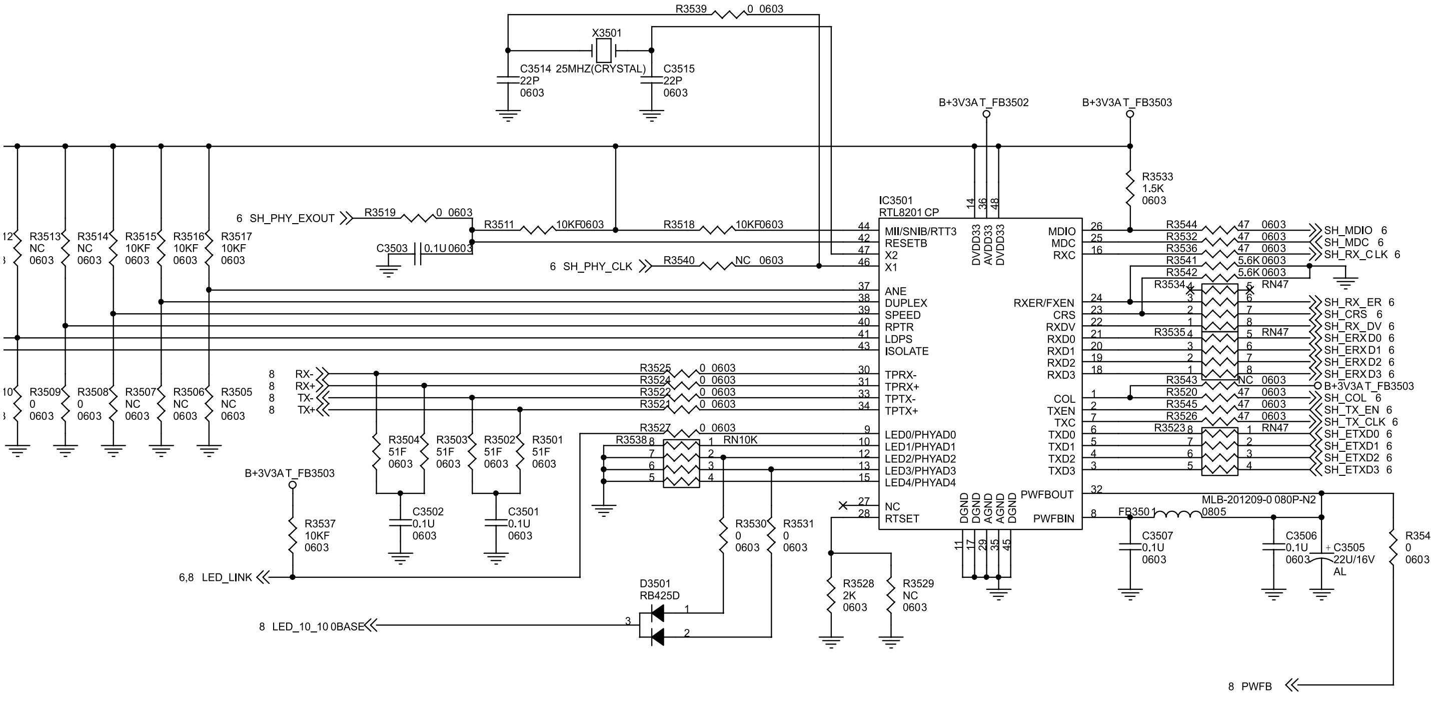
O2 6

O3 6


B+3V3AT
C2601
0.1U
0603
C2602
0.1U
0603
FB3503
MLB-201209-0 080P-N2
0805
C3510
22U/16V
AL
C3511
0.1U
0603
C3512
0.1U
0603
C3513
0.1U
0603
B+3V3A T_FB3503
FB3502
MLB-201209-0 080P-N2
0805
B+3V3A T_FB3502
C3504
0.1U
0603
C3508
1U/16V
0805
C3509
0.1U
0603

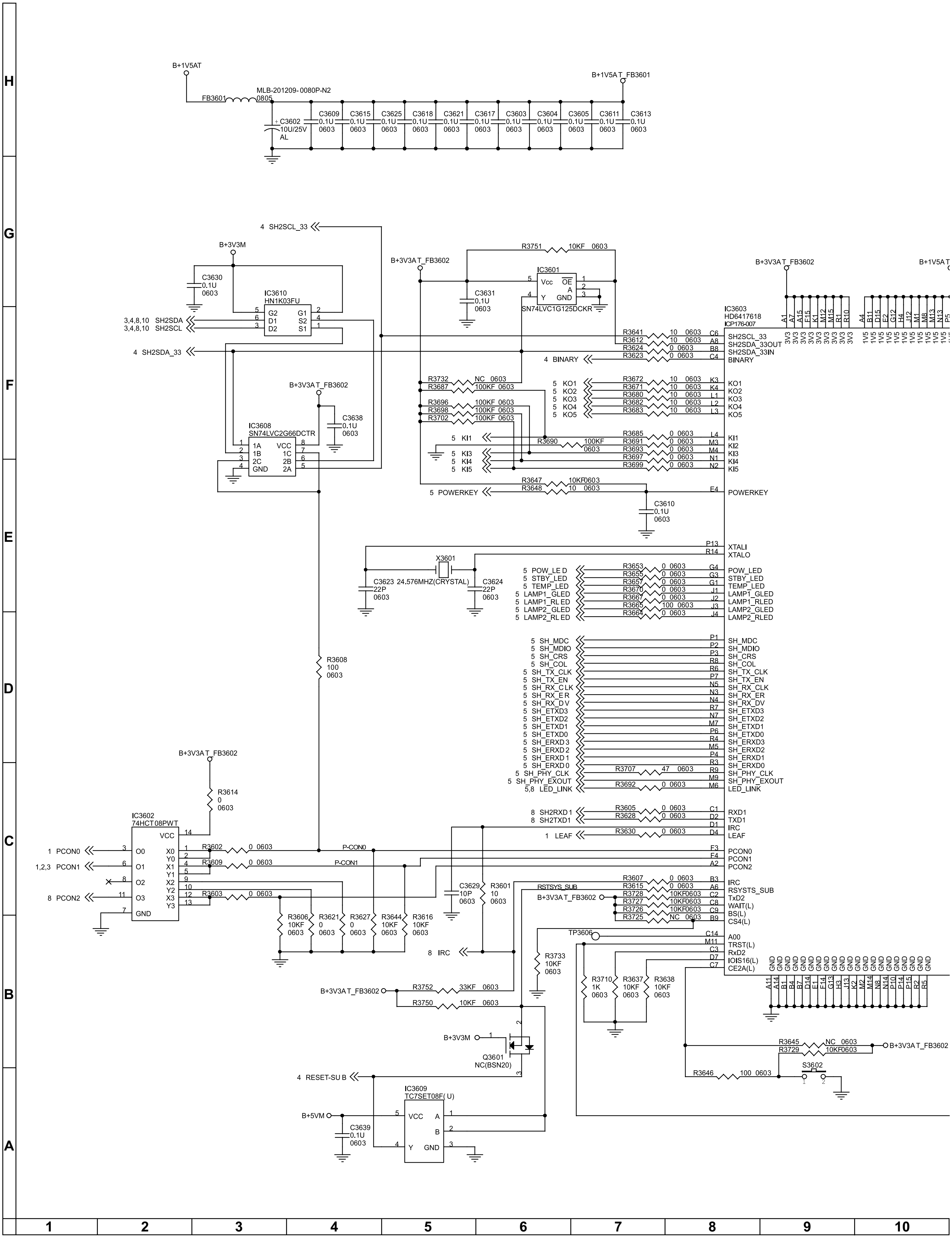
O4 6

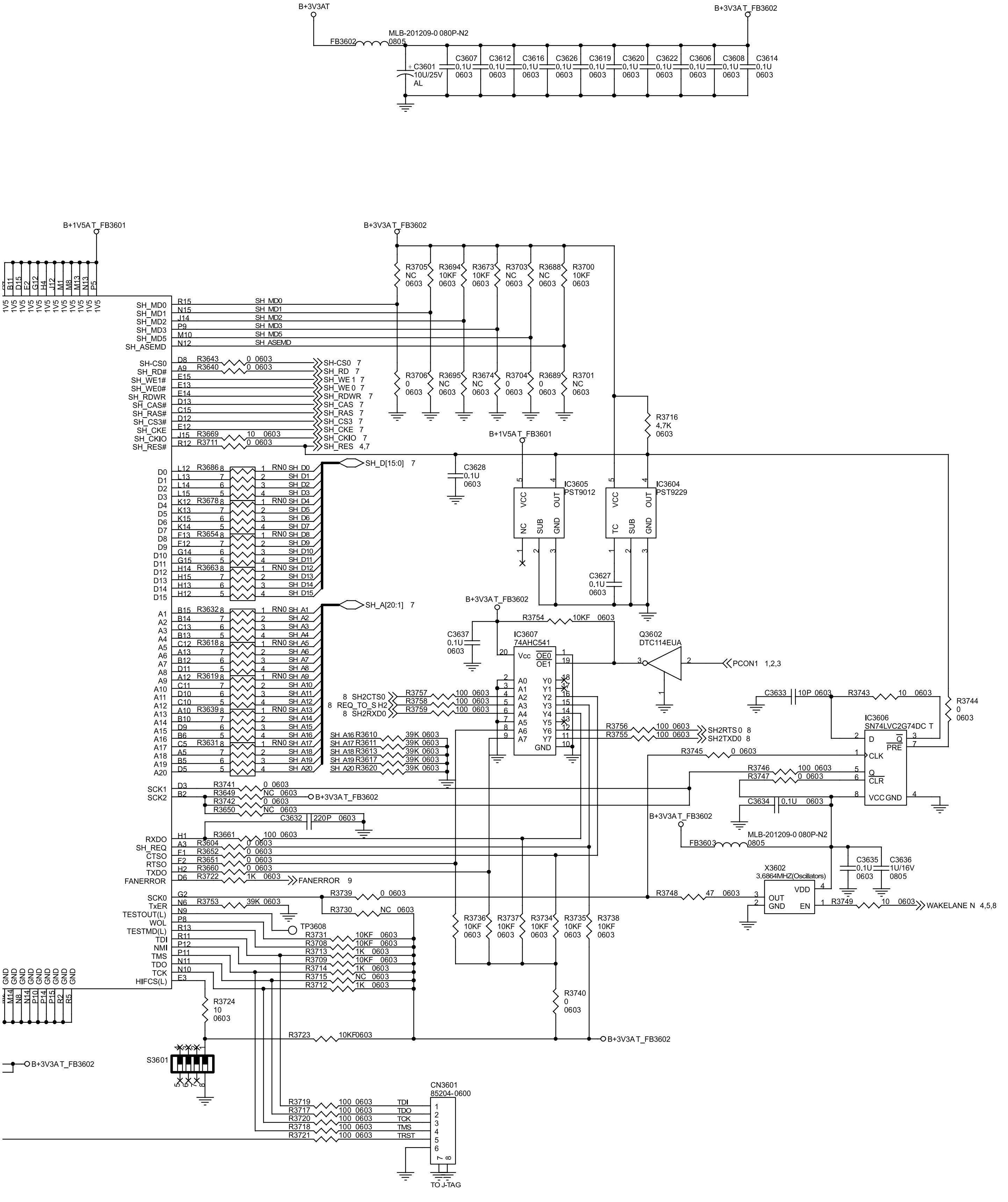
O5 6


R3539 0 0603
X3501
C3514 25MHZ(CRYSTAL)
22P
0603
C3515
22P
0603
B+3V3A T_FB3502
B+3V3A T_FB3503
R3533
1.5K
0603
IC3501
RTL8201 CP
6 SH_PHY_EXOUT
R3519 0 0603
R3511 10KF0603
R3518 10KF0603
C3503 0.1U 0603
6 SH_PHY_CLK
R3540 NC 0603
R3513 NC 0603
R3514 NC 0603
R3515 10KF 0603
R3516 10KF 0603
R3517 10KF 0603
R3509 0 0603
R3508 0 0603
R3507 NC 0603
R3506 NC 0603
R3505 NC 0603
MII/SNIB/RTT3
RESETB
X2
X1
ANE
DUPLEX
SPEED
RPTR
LDPS
ISOLATE
TPRX-
TPRX+
TPTX-
TPTX+
LED0/PHYAD0
LED1/PHYAD1
LED2/PHYAD2
LED3/PHYAD3
LED4/PHYAD4
NC
RTSET
DVDD33
AVDD33
DVDD33
DGND
DGND
AGND
AGND
DGND
MDIO
MDC
RXC
RXER/FXEN
CRS
RXDV
RXD0
RXD1
RXD2
RXD3
COL
TXEN
TXC
TXD0
TXD1
TXD2
TXD3
PWFBOUT
PWFBIN
8 RX-
8 RX+
8 TX-
8 TX+
R3525 0 0603
R3524 0 0603
R3522 0 0603
R3521 0 0603
R3504 51F 0603
R3503 51F 0603
R3502 51F 0603
R3501 51F 0603
C3502 0.1U 0603
C3501 0.1U 0603
R3527 0 0603
R3538
RN10K
B+3V3A T_FB3503
R3537 10KF 0603
6,8 LED_LINK
R3530 0 0603
R3531 0 0603
D3501
RB425D
8 LED_10_10 0BASE
R3528 2K 0603
R3529 NC 0603
R3544 47 0603
R3532 47 0603
R3536 47 0603
R3541 5.6K 0603
R3542 5.6K 0603
R3534
RN47
R3535
RN47
R3543 NC 0603
R3520 47 0603
R3545 47 0603
R3526 47 0603
R3523
RN47
SH_MDIO 6
SH_MDC 6
SH_RX_CLK 6
SH_RX_ER 6
SH_CRS 6
SH_RX_DV 6
SH_ERXD0 6
SH_ERXD1 6
SH_ERXD2 6
SH_ERXD3 6
B+3V3A T_FB3503
SH_COL 6
SH_TX_EN 6
SH_TX_CLK 6
SH_ETXD0 6
SH_ETXD1 6
SH_ETXD2 6
SH_ETXD3 6
FB3501
MLB-201209-0 080P-N2
0805
C3507 0.1U 0603
C3506 0.1U 0603
C3505 22U/16V AL
R3546 0 0603
8 PWFB

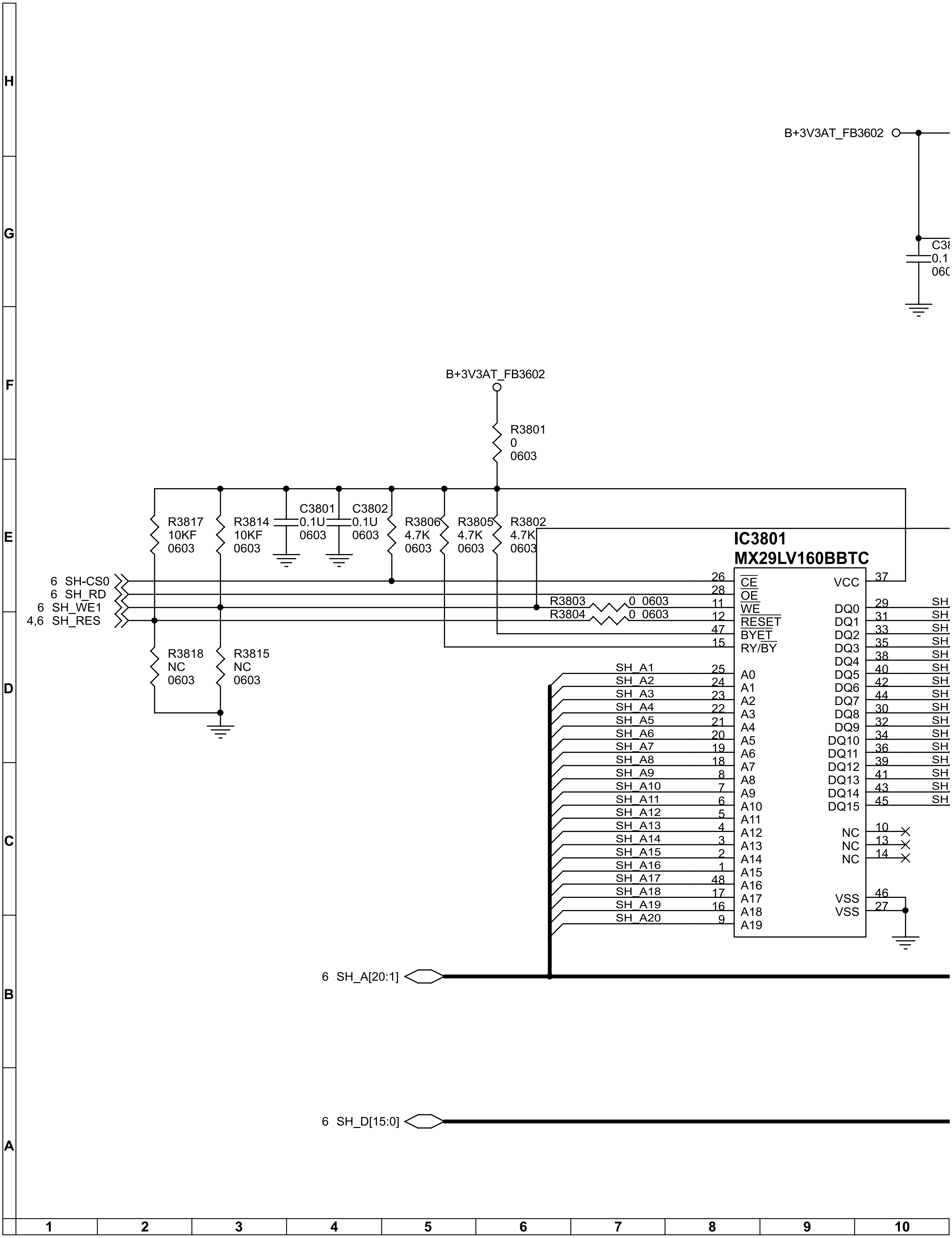
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

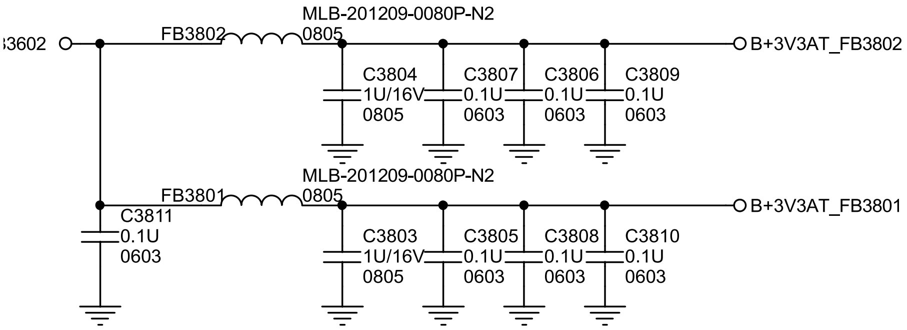
# ■MAIN UNIT / HAUPTEINHEIT-6/10


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
B+1V5AT
FB3601
MLB-201209-0080P-N2
0805
B+1V5AT_FB3601
C3602
10U/25V
AL
C3609 C3615 C3625 C3618 C3621 C3617 C3603 C3604 C3605 C3611 C3613
0.1U
0603
4 SH2SCL_33
B+3V3M
C3630
0.1U
0603
IC3610
HN1K03FU
G2 D1 D2 G1 S2 S1
3,4,8,10 SH2SDA
3,4,8,10 SH2SCL
4 SH2SDA_33
B+3V3AT_FB3602
R3751 10KF 0603
IC3601
SN74LVC1G125DCKR
Vcc OE A Y GND
C3631
0.1U
0603
IC3603
HD6417618
ICP176-007
R3641 10 0603 C6 SH2SCL_33
R3612 10 0603 A8 SH2SDA_33OUT
R3624 0 0603 B8 SH2SDA_33IN
R3623 0 0603 C4 BINARY
4 BINARY
B+1V5AT
R3732 NC 0603
R3687 100KF 0603
R3696 100KF 0603
R3698 100KF 0603
R3702 100KF 0603
5 KO1
5 KO2
5 KO3
5 KO4
5 KO5
R3672 10 0603 K3 KO1
R3671 10 0603 K4 KO2
R3680 10 0603 L1 KO3
R3682 10 0603 L2 KO4
R3683 10 0603 L3 KO5
5 KI1
5 KI3
5 KI4
5 KI5
R3690 100KF 0603
R3685 0 0603 L4 KI1
R3691 0 0603 M3 KI2
R3693 0 0603 M4 KI3
R3697 0 0603 N1 KI4
R3699 0 0603 N2 KI5
IC3608
SN74LVC2G66DCTR
1A 1B 2C GND VCC 1C 2B 2A
C3638
0.1U
0603
5 POWERKEY
R3647 10KF0603
R3648 10 0603
E4 POWERKEY
C3610
0.1U
0603
P13 XTALI
R14 XTALO
X3601
C3623 24.576MHZ(CRYSTAL)
22P
0603
C3624
22P
0603
5 POW_LED
5 STBY_LED
5 TEMP_LED
5 LAMP1_GLED
5 LAMP1_RLED
5 LAMP2_GLED
5 LAMP2_RLED
R3653 0 0603 G4 POW_LED
R3655 0 0603 G3 STBY_LED
R3657 0 0603 G1 TEMP_LED
R3670 0 0603 J1 LAMP1_GLED
R3667 0 0603 J2 LAMP1_RLED
R3665 100 0603 J3 LAMP2_GLED
R3664 0 0603 J4 LAMP2_RLED
5 SH_MDC P1 SH_MDC
5 SH_MDIO P2 SH_MDIO
5 SH_CRS P3 SH_CRS
5 SH_COL R8 SH_COL
5 SH_TX_CLK R6 SH_TX_CLK
5 SH_TX_EN P7 SH_TX_EN
5 SH_RX_CLK N5 SH_RX_CLK
5 SH_RX_ER N3 SH_RX_ER
5 SH_RX_DV N4 SH_RX_DV
5 SH_ETXD3 R7 SH_ETXD3
5 SH_ETXD2 N7 SH_ETXD2
5 SH_ETXD1 M7 SH_ETXD1
5 SH_ETXD0 P6 SH_ETXD0
5 SH_ERXD3 R4 SH_ERXD3
5 SH_ERXD2 M5 SH_ERXD2
5 SH_ERXD1 P4 SH_ERXD1
5 SH_ERXD0 R3 SH_ERXD0
5 SH_PHY_CLK R3707 47 0603 R9 SH_PHY_CLK
5 SH_PHY_EXOUT M9 SH_PHY_EXOUT
5,8 LED_LINK R3692 0 0603 M6 LED_LINK
R3608
100
0603
B+3V3AT_FB3602
R3614
0
0603
IC3602
74HCT08PWT
VCC O0 O1 O2 O3 GND X0 Y0 X1 Y1 X2 Y2 X3 Y3
1 PCON0
1,2,3 PCON1
8 PCON2
R3602 0 0603
R3609 0 0603
R3603 0 0603
P-CON0
P-CON1
8 SH2RXD1
8 SH2TXD1
R3605 0 0603 C1 RXD1
R3628 0 0603 D2 TXD1
D1 IRC
1 LEAF
R3630 0 0603 D4 LEAF
F3 PCON0
F4 PCON1
A2 PCON2
C3629
10P
0603
R3601
10
0603
RSTSYS_SUB
R3607 0 0603 B3 IRC
R3615 0 0603 A6 RSYSTS_SUB
R3728 10KF0603 C2 TxD2
R3727 10KF0603 C8 WAIT(L)
R3726 10KF0603 C9 BS(L)
R3725 NC 0603 B9 CS4(L)
TP3606 C14 A00
M11 TRST(L)
C3 RxD2
D7 IOIS16(L)
C7 CE2A(L)
R3606 10KF 0603
R3621 0 0603
R3627 0 0603
R3644 10KF 0603
R3616 10KF 0603
8 IRC
R3733
10KF
0603
R3710 1K 0603
R3637 10KF 0603
R3638 10KF 0603
R3752 33KF 0603
R3750 10KF 0603
B+3V3M
Q3601
NC(BSN20)
4 RESET-SUB
IC3609
TC7SET08F(U)
VCC A B Y GND
B+5VM
C3639
0.1U
0603
R3645 NC 0603
R3729 10KF0603
R3646 100 0603
S3602
A1 A7 A15 F15 K1 M12 M15 R1 R10
3V3
A4 B11 D15 F2 G12 H4 J12 M1 M8 M13 P5
1V5
GND
A11 A14 B1 B4 B7 D14 E1 F14 G13 H3 J13 K2 M2 M14 N8 N14 P10 P14 P15 R2 R5

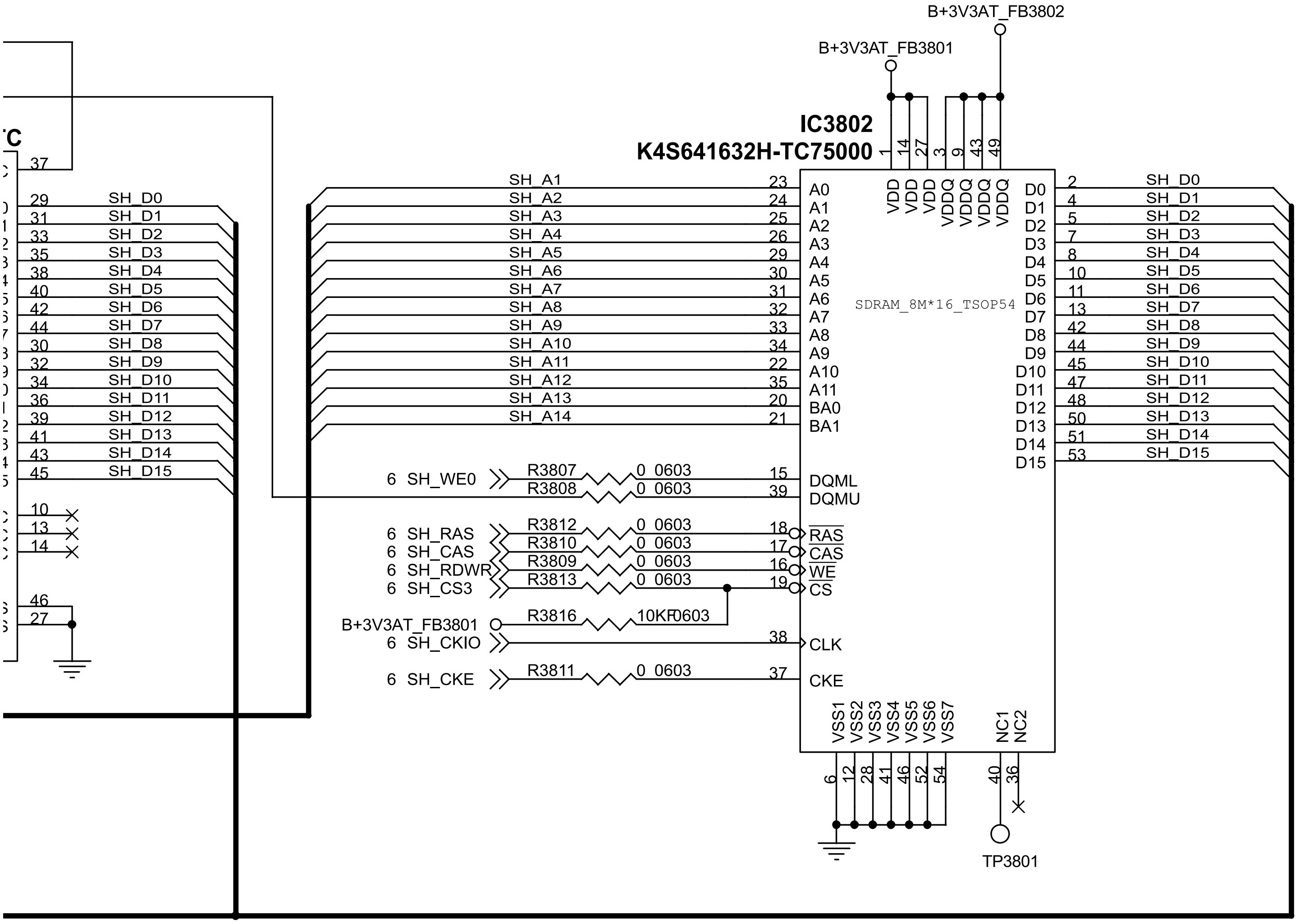

B+3V3AT
B+3V3AT_FB3602
FB3602
MLB-201209-0 080P-N2
0805
C3601
10U/25V
AL
C3607 0.1U 0603
C3612 0.1U 0603
C3616 0.1U 0603
C3626 0.1U 0603
C3619 0.1U 0603
C3620 0.1U 0603
C3622 0.1U 0603
C3606 0.1U 0603
C3608 0.1U 0603
C3614 0.1U 0603
B+1V5AT_FB3601
1V5
SH_MD0
SH_MD1
SH_MD2
SH_MD3
SH_MD5
SH_ASEMD
R3705 NC 0603
R3694 10KF 0603
R3673 10KF 0603
R3703 NC 0603
R3688 NC 0603
R3700 10KF 0603
R3706 0 0603
R3695 NC 0603
R3674 NC 0603
R3704 0 0603
R3689 0 0603
R3701 NC 0603
SH-CS0
SH_RD#
SH_WE1#
SH_WE0#
SH_RDWR
SH_CAS#
SH_RAS#
SH_CS3#
SH_CKE
SH_CKIO
SH_RES#
R3643 0 0603
R3640 0 0603
R3669 10 0603
R3711 0 0603
SH-CS0 7
SH_RD 7
SH_WE 1 7
SH_WE 0 7
SH_RDWR 7
SH_CAS 7
SH_RAS 7
SH_CS3 7
SH_CKE 7
SH_CKIO 7
SH_RES 4,7
R3716 4,7K 0603
C3628 0.1U 0603
IC3605 PST9012
IC3604 PST9229
VCC OUT NC SUB GND TC
C3627 0.1U 0603
D0 … D15
R3686 R3678 R3654 R3663
RN0
SH_D[15:0] 7
A1 … A20
R3632 R3618 R3619 R3639 R3631
SH_A[20:1] 7
C3637 0.1U 0603
R3754 10KF 0603
IC3607 74AHC541
Q3602 DTC114EUA
PCON1 1,2,3
8 SH2CTS0
8 REQ_TO_S H2
8 SH2RXD0
R3757 100 0603
R3758 100 0603
R3759 100 0603
R3756 100 0603
R3755 100 0603
SH2RTS0 8
SH2TXD0 8
SH_A16 R3610 39K 0603
SH_A17 R3611 39K 0603
SH_A18 R3613 39K 0603
SH_A19 R3617 39K 0603
SH_A20 R3620 39K 0603
C3633 10P 0603
R3743 10 0603
R3744 0 0603
IC3606 SN74LVC2G74DC T
R3745 0 0603
R3746 100 0603
R3747 0 0603
C3634 0.1U 0603
FB3603 MLB-201209-0 080P-N2 0805
C3635 0.1U 0603
C3636 1U/16V 0805
X3602 3.6864MHZ(Oscillators)
R3748 47 0603
R3749 10 0603
WAKELANE N 4,5,8
SCK1
SCK2
R3741 0 0603
R3649 NC 0603
R3742 0 0603
R3650 NC 0603
C3632 220P 0603
RXDO
SH_REQ
CTSO
RTSO
TXDO
FANERROR
R3661 100 0603
R3604 0 0603
R3652 0 0603
R3651 0 0603
R3660 0 0603
R3722 1K 0603
FANERROR 9
SCK0
TxER
TESTOUT(L)
WOL
TESTMD(L)
TDI
NMI
TMS
TDO
TCK
HIFCS(L)
R3739 0 0603
R3753 39K 0603
R3730 NC 0603
TP3608
R3731 10KF 0603
R3708 10KF 0603
R3713 1K 0603
R3709 10KF 0603
R3714 1K 0603
R3715 NC 0603
R3712 1K 0603
R3736 10KF 0603
R3737 10KF 0603
R3734 10KF 0603
R3735 10KF 0603
R3738 10KF 0603
R3740 0 0603
R3724 10 0603
R3723 10KF0603
S3601
CN3601 85204-0600
R3719 100 0603 TDI
R3717 100 0603 TDO
R3720 100 0603 TCK
R3718 100 0603 TMS
R3721 100 0603 TRST
TO J-TAG
GND
10
11
12
13
14
15
16
17
18
19

# ■MAIN UNIT / HAUPTEINHEIT-7/10


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
B+3V3AT_FB3602
C38
0.1
060
B+3V3AT_FB3602
R3801
0
0603
R3817
10KF
0603
R3814
10KF
0603
C3801
0.1U
0603
C3802
0.1U
0603
R3806
4.7K
0603
R3805
4.7K
0603
R3802
4.7K
0603
IC3801
MX29LV160BBTC
6 SH-CS0
6 SH_RD
6 SH_WE1
4,6 SH_RES
R3803
0 0603
R3804
0 0603
R3818
NC
0603
R3815
NC
0603
26 CE
28 OE
11 WE
12 RESET
47 BYET
15 RY/BY
25 A0 SH_A1
24 A1 SH_A2
23 A2 SH_A3
22 A3 SH_A4
21 A4 SH_A5
20 A5 SH_A6
19 A6 SH_A7
18 A7 SH_A8
8 A8 SH_A9
7 A9 SH_A10
6 A10 SH_A11
5 A11 SH_A12
4 A12 SH_A13
3 A13 SH_A14
2 A14 SH_A15
1 A15 SH_A16
48 A16 SH_A17
17 A17 SH_A18
16 A18 SH_A19
9 A19 SH_A20
VCC 37
DQ0 29 SH
DQ1 31 SH
DQ2 33 SH
DQ3 35 SH
DQ4 38 SH
DQ5 40 SH
DQ6 42 SH
DQ7 44 SH
DQ8 30 SH
DQ9 32 SH
DQ10 34 SH
DQ11 36 SH
DQ12 39 SH
DQ13 41 SH
DQ14 43 SH
DQ15 45 SH
NC 10
NC 13
NC 14
VSS 46
VSS 27
6 SH_A[20:1]
6 SH_D[15:0]



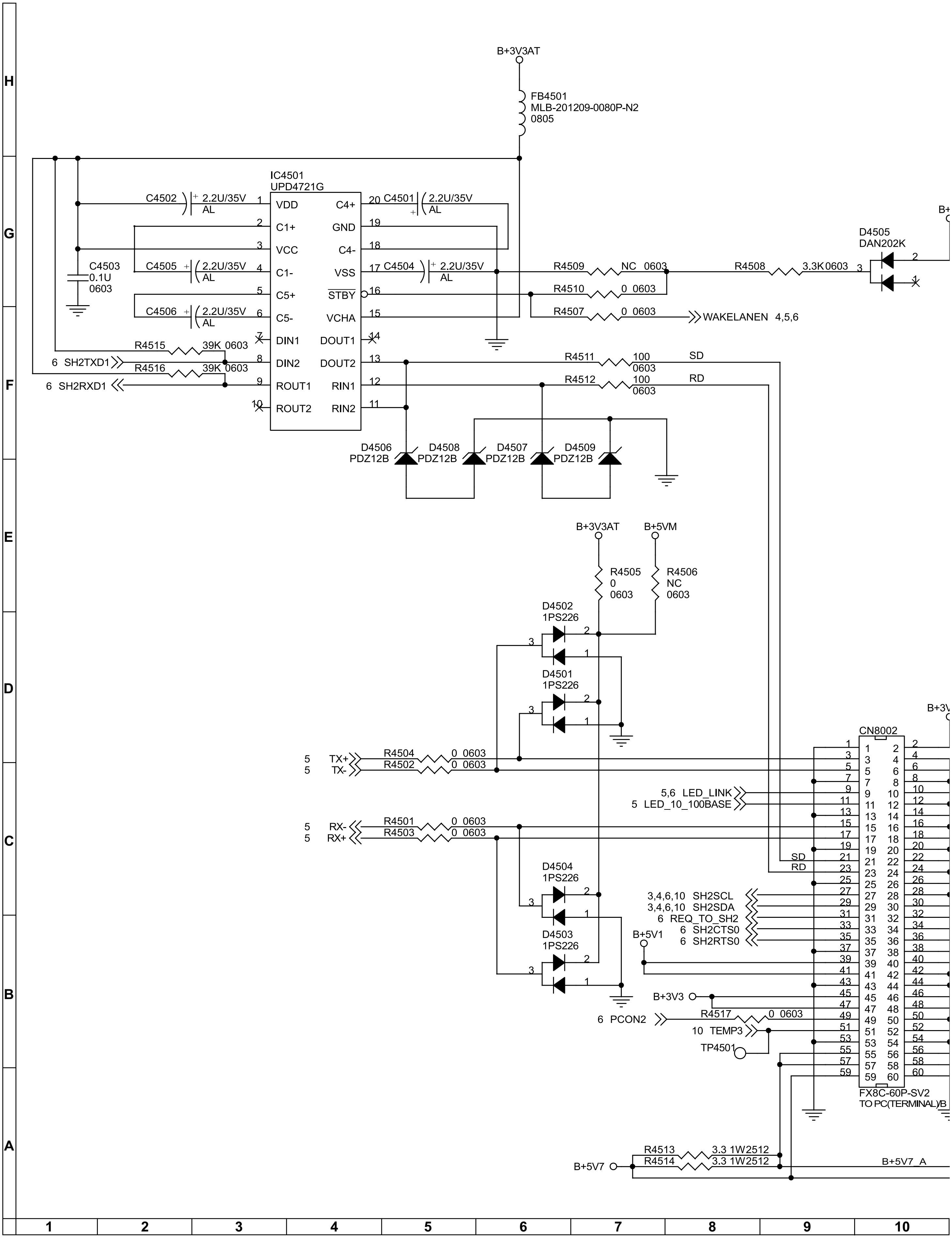
3602
FB3802
MLB-201209-0080P-N2
0805
B+3V3AT_FB3802
C3804
1U/16V
0805
C3807
0.1U
0603
C3806
0.1U
0603
C3809
0.1U
0603
FB3801
MLB-201209-0080P-N2
0805
B+3V3AT_FB3801
C3811
0.1U
0603
C3803
1U/16V
0805
C3805
0.1U
0603
C3808
0.1U
0603
C3810
0.1U
0603

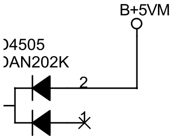


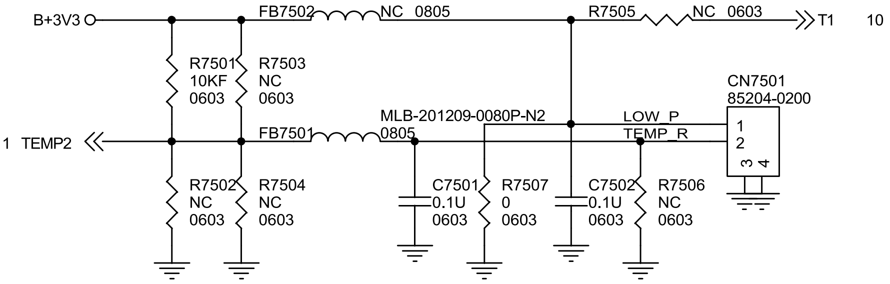
B+3V3AT_FB3802
B+3V3AT_FB3801
IC3802
K4S641632H-TC75000
SDRAM_8M*16_TSOP54
VDD VDD VDD VDDQ VDDQ VDDQ VDDQ
1 14 27 3 9 43 49
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 BA0 BA1
23 24 25 26 29 30 31 32 33 34 22 35 20 21
SH_A1 SH_A2 SH_A3 SH_A4 SH_A5 SH_A6 SH_A7 SH_A8 SH_A9 SH_A10 SH_A11 SH_A12 SH_A13 SH_A14
D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15
2 4 5 7 8 10 11 13 42 44 45 47 48 50 51 53
SH_D0 SH_D1 SH_D2 SH_D3 SH_D4 SH_D5 SH_D6 SH_D7 SH_D8 SH_D9 SH_D10 SH_D11 SH_D12 SH_D13 SH_D14 SH_D15
DQML 15
DQMU 39
6 SH_WE0
R3807 0 0603
R3808 0 0603
6 SH_RAS
6 SH_CAS
6 SH_RDWR
6 SH_CS3
R3812 0 0603
R3810 0 0603
R3809 0 0603
R3813 0 0603
18 RAS
17 CAS
16 WE
19 CS
B+3V3AT_FB3801
R3816 10KF0603
6 SH_CKIO
38 CLK
6 SH_CKE
R3811 0 0603
37 CKE
VSS1 VSS2 VSS3 VSS4 VSS5 VSS6 VSS7
6 12 28 41 46 52 54
NC1 NC2
40 36
TP3801
C
37
29 31 33 35 38 40 42 44 30 32 34 36 39 41 43 45
SH_D0 SH_D1 SH_D2 SH_D3 SH_D4 SH_D5 SH_D6 SH_D7 SH_D8 SH_D9 SH_D10 SH_D11 SH_D12 SH_D13 SH_D14 SH_D15
10
13
14
46
27

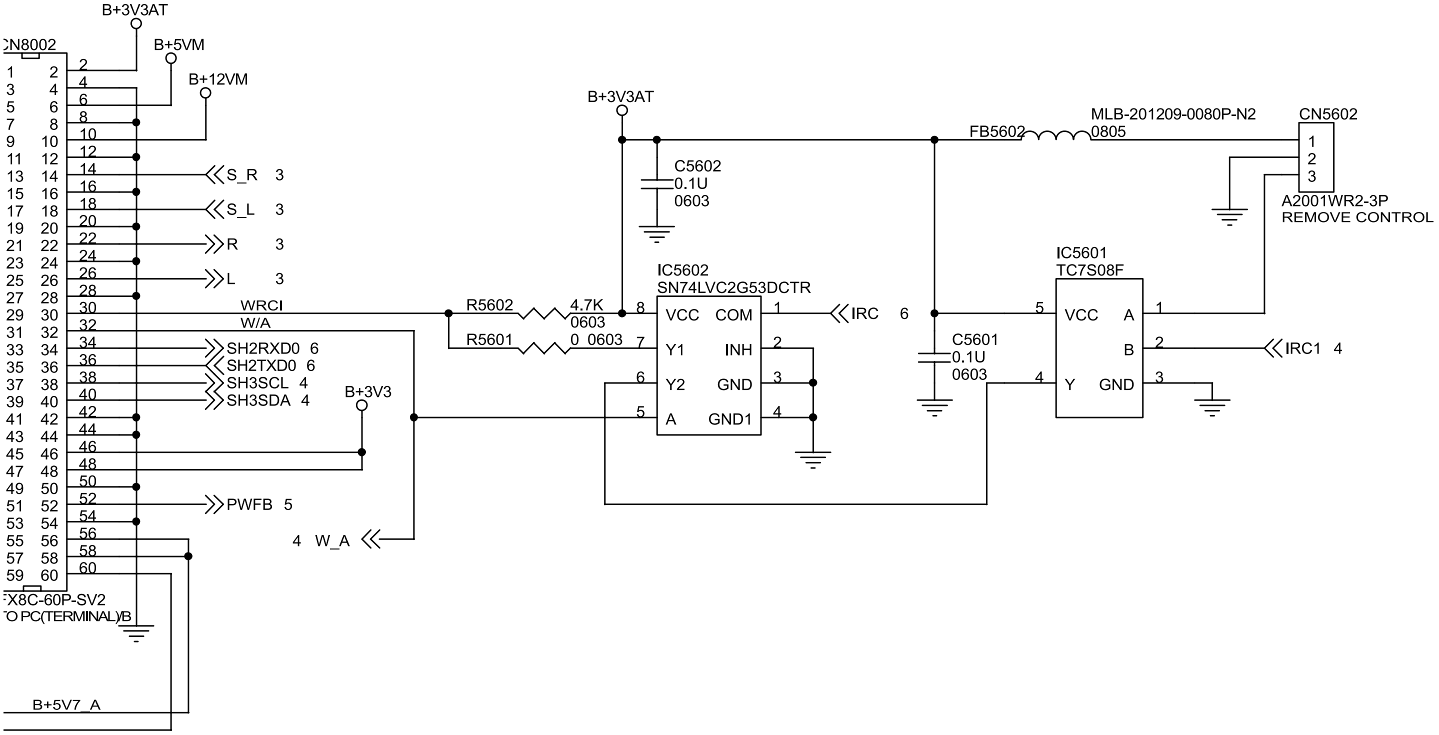
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |

# ■MAIN UNIT / HAUPTEINHEIT-8/10


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
B+3V3AT
FB4501
MLB-201209-0080P-N2
0805
IC4501
UPD4721G
C4502
2.2U/35V
AL
C4501
2.2U/35V
AL
C4503
0.1U
0603
C4505
2.2U/35V
AL
C4504
2.2U/35V
AL
C4506
2.2U/35V
AL
VDD
C1+
VCC
C1-
C5+
C5-
DIN1
DIN2
ROUT1
ROUT2
C4+
GND
C4-
VSS
STBY
VCHA
DOUT1
DOUT2
RIN1
RIN2
R4515
39K 0603
R4516
39K 0603
6 SH2TXD1
6 SH2RXD1
R4509
NC 0603
R4508
3.3K 0603
R4510
0 0603
R4507
0 0603
WAKELANEN 4,5,6
D4505
DAN202K
B+
R4511
100
0603
SD
R4512
100
0603
RD
D4506
PDZ12B
D4508
PDZ12B
D4507
PDZ12B
D4509
PDZ12B
B+3V3AT
B+5VM
R4505
0
0603
R4506
NC
0603
D4502
1PS226
D4501
1PS226
D4504
1PS226
D4503
1PS226
5 TX+
5 TX-
R4504
0 0603
R4502
0 0603
5 RX-
5 RX+
R4501
0 0603
R4503
0 0603
B+3V
CN8002
5,6 LED_LINK
5 LED_10_100BASE
SD
RD
3,4,6,10 SH2SCL
3,4,6,10 SH2SDA
6 REQ_TO_SH2
6 SH2CTS0
6 SH2RTS0
B+5V1
B+3V3
R4517
0 0603
6 PCON2
10 TEMP3
TP4501
FX8C-60P-SV2
TO PC(TERMINAL)B
R4513
3.3 1W2512
R4514
3.3 1W2512
B+5V7
B+5V7_A

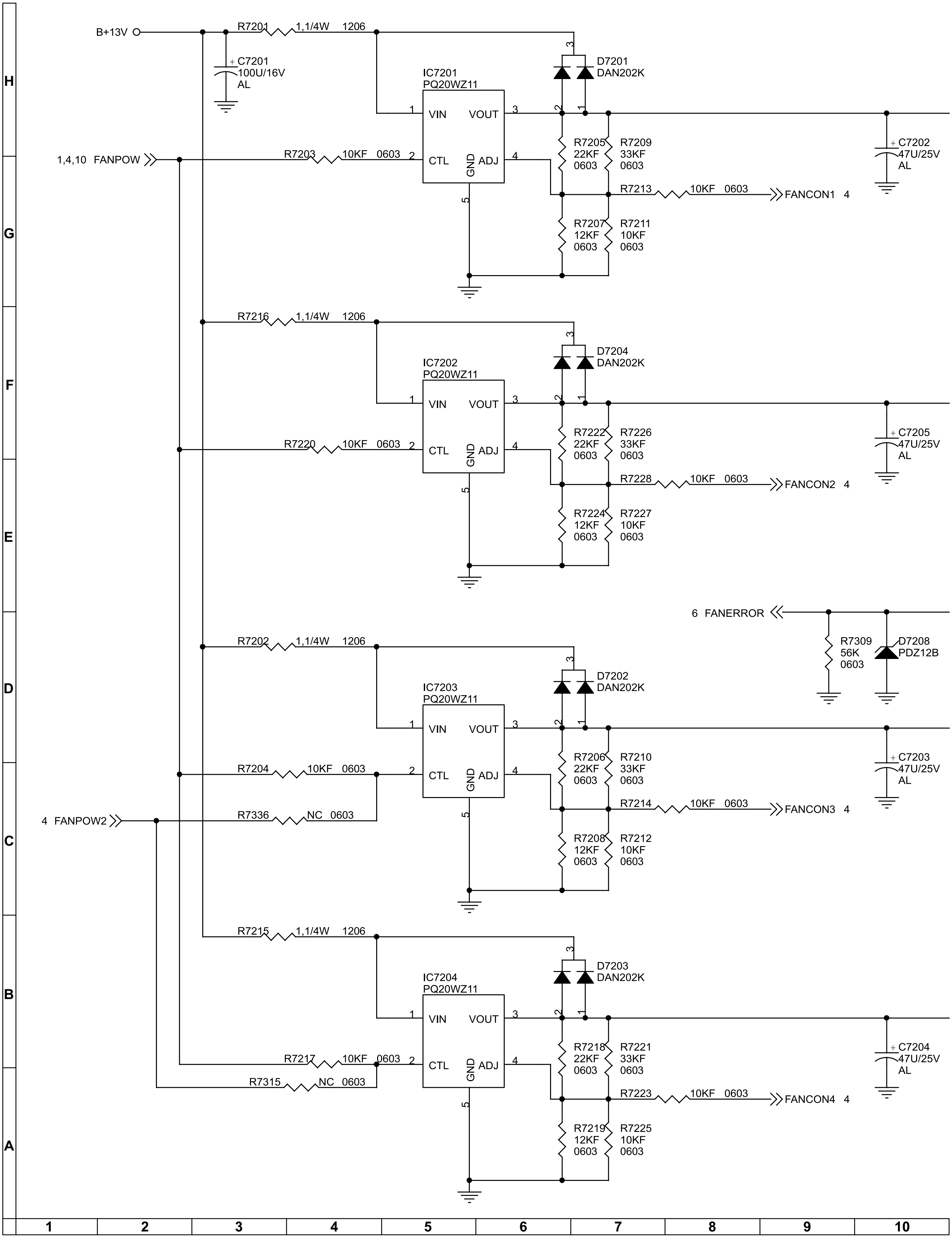

B+5VM
)4505
)AN202K
2
1


B+3V3
FB7502
NC 0805
R7505
NC 0603
T1 10
R7501
10KF
0603
R7503
NC
0603
CN7501
85204-0200
MLB-201209-0080P-N2
0805
LOW_P
TEMP_R
1
2
3
4
1 TEMP2
FB7501
R7502
NC
0603
R7504
NC
0603
C7501
0.1U
0603
R7507
0
0603
C7502
0.1U
0603
R7506
NC
0603

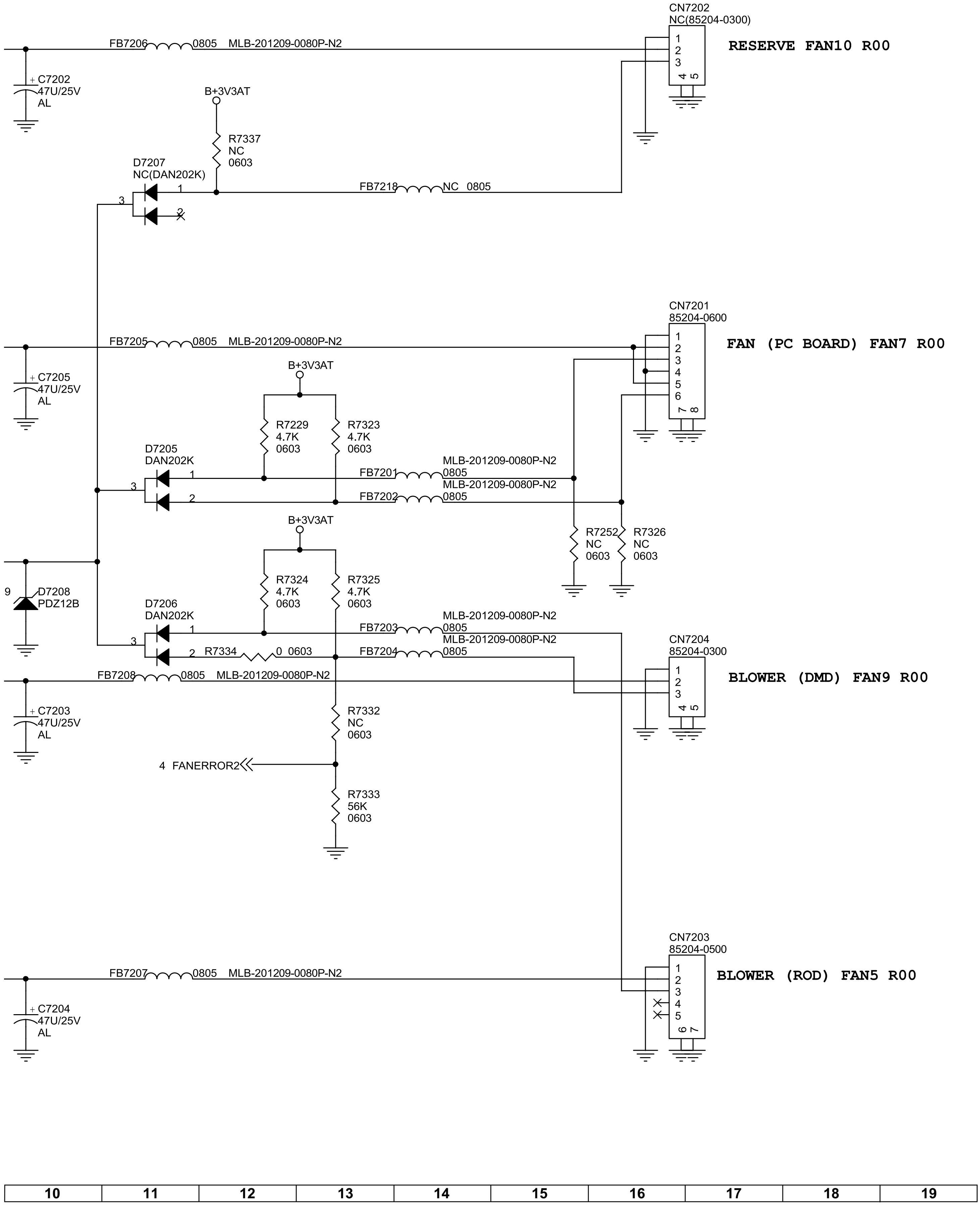

B+3V3AT
CN8002
B+5VM
B+12VM
1 2
3 4
5 6
7 8
9 10
11 12
13 14
15 16
17 18
19 20
21 22
23 24
25 26
27 28
29 30
31 32
33 34
35 36
37 38
39 40
41 42
43 44
45 46
47 48
49 50
51 52
53 54
55 56
57 58
59 60
S_R 3
S_L 3
R 3
L 3
WRCI
W/A
SH2RXD0 6
SH2TXD0 6
SH3SCL 4
SH3SDA 4
B+3V3
PWFB 5
4 W_A
FX8C-60P-SV2
TO PC(TERMINAL)B
B+5V7_A
B+3V3AT
C5602
0.1U
0603
FB5602
MLB-201209-0080P-N2
0805
CN5602
1
2
3
A2001WR2-3P
REMOVE CONTROL
IC5602
SN74LVC2G53DCTR
R5602
4.7K
0603
R5601
0 0603
8 VCC
7 Y1
6 Y2
5 A
COM 1
INH 2
GND 3
GND1 4
IRC 6
C5601
0.1U
0603
IC5601
TC7S08F
5 VCC
4 Y
A 1
B 2
GND 3
IRC1 4

| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

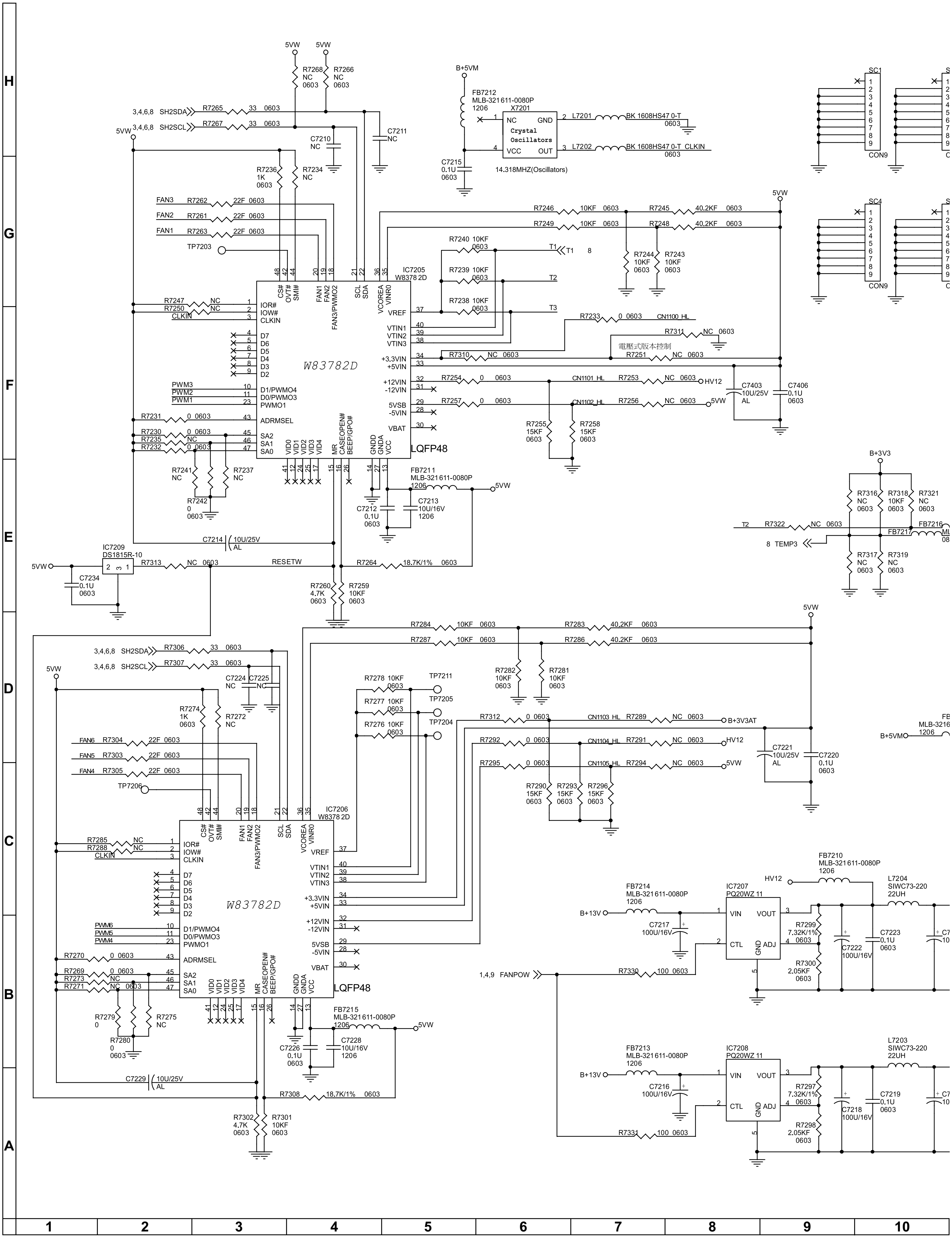
# ■MAIN UNIT / HAUPTEINHEIT-9/10



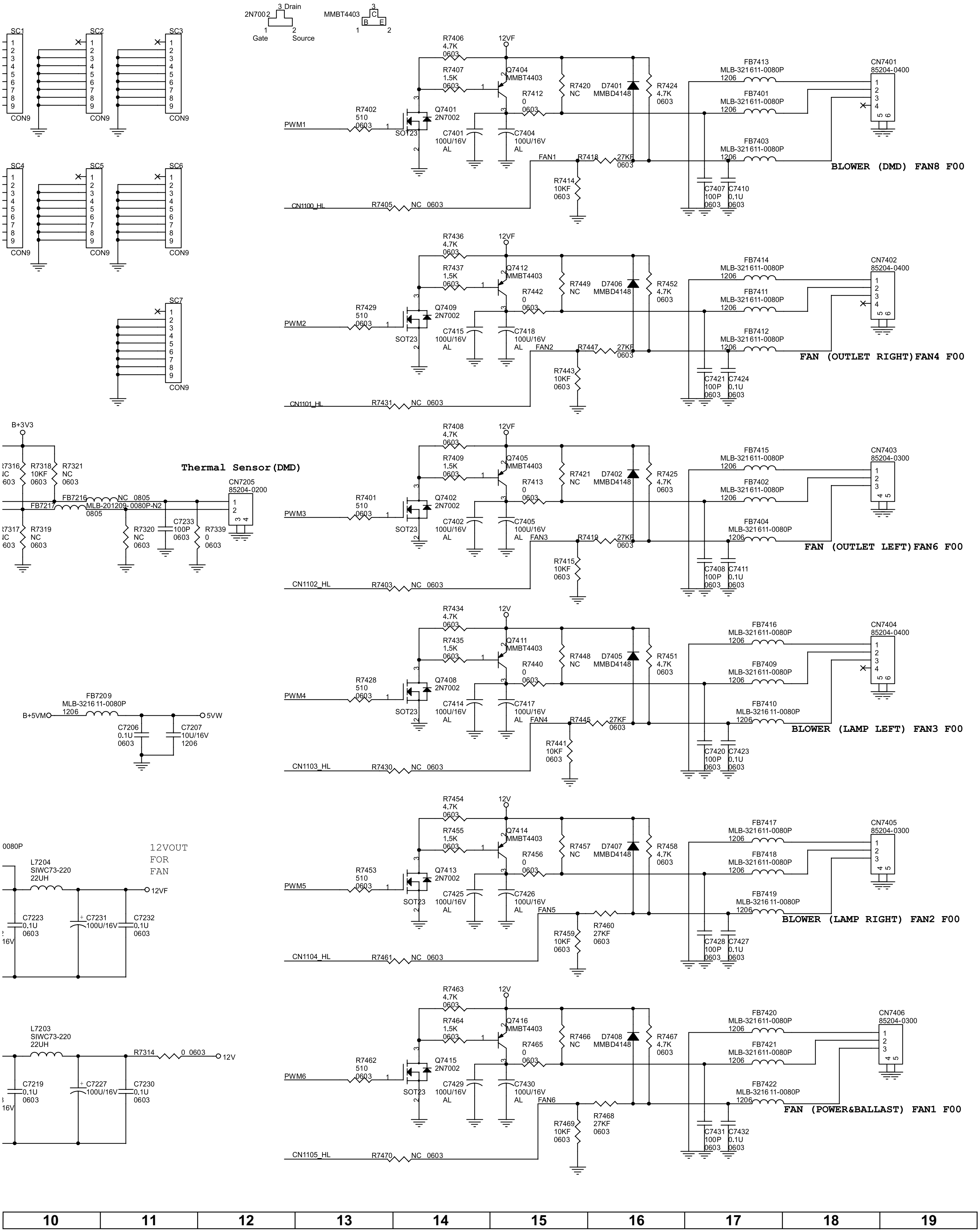
B+13V
R7201 1,1/4W 1206
C7201 100U/16V AL
IC7201 PQ20WZ11
VIN VOUT CTL ADJ GND
D7201 DAN202K
1,4,10 FANPOW
R7203 10KF 0603
R7205 22KF 0603
R7209 33KF 0603
R7207 12KF 0603
R7211 10KF 0603
R7213 10KF 0603
FANCON1 4
C7202 47U/25V AL
R7216 1,1/4W 1206
IC7202 PQ20WZ11
D7204 DAN202K
R7220 10KF 0603
R7222 22KF 0603
R7226 33KF 0603
R7224 12KF 0603
R7227 10KF 0603
R7228 10KF 0603
FANCON2 4
C7205 47U/25V AL
6 FANERROR
R7309 56K 0603
D7208 PDZ12B
R7202 1,1/4W 1206
IC7203 PQ20WZ11
D7202 DAN202K
R7204 10KF 0603
4 FANPOW2
R7336 NC 0603
R7206 22KF 0603
R7210 33KF 0603
R7208 12KF 0603
R7212 10KF 0603
R7214 10KF 0603
FANCON3 4
C7203 47U/25V AL
R7215 1,1/4W 1206
IC7204 PQ20WZ11
D7203 DAN202K
R7217 10KF 0603
R7315 NC 0603
R7218 22KF 0603
R7221 33KF 0603
R7219 12KF 0603
R7225 10KF 0603
R7223 10KF 0603
FANCON4 4
C7204 47U/25V AL
H G F E D C B A
1 2 3 4 5 6 7 8 9 10


CN7202
NC(85204-0300)
1
2
3
4 5
RESERVE FAN10 R00
FB7206
0805 MLB-201209-0080P-N2
C7202
47U/25V
AL
B+3V3AT
R7337
NC
0603
D7207
NC(DAN202K)
1
2
3
FB7218
NC 0805
CN7201
85204-0600
1
2
3
4
5
6
7 8
FAN (PC BOARD) FAN7 R00
FB7205
0805 MLB-201209-0080P-N2
C7205
47U/25V
AL
B+3V3AT
R7229
4.7K
0603
R7323
4.7K
0603
D7205
DAN202K
1
2
3
FB7201
MLB-201209-0080P-N2
0805
FB7202
MLB-201209-0080P-N2
0805
R7252
NC
0603
R7326
NC
0603
B+3V3AT
R7324
4.7K
0603
R7325
4.7K
0603
9
D7208
PDZ12B
D7206
DAN202K
1
2
3
R7334
0 0603
FB7203
MLB-201209-0080P-N2
0805
FB7204
MLB-201209-0080P-N2
0805
CN7204
85204-0300
1
2
3
4 5
BLOWER (DMD) FAN9 R00
FB7208
0805 MLB-201209-0080P-N2
C7203
47U/25V
AL
R7332
NC
0603
4 FANERROR2
R7333
56K
0603
CN7203
85204-0500
1
2
3
4
5
6 7
BLOWER (ROD) FAN5 R00
FB7207
0805 MLB-201209-0080P-N2
C7204
47U/25V
AL
10
11
12
13
14
15
16
17
18
19

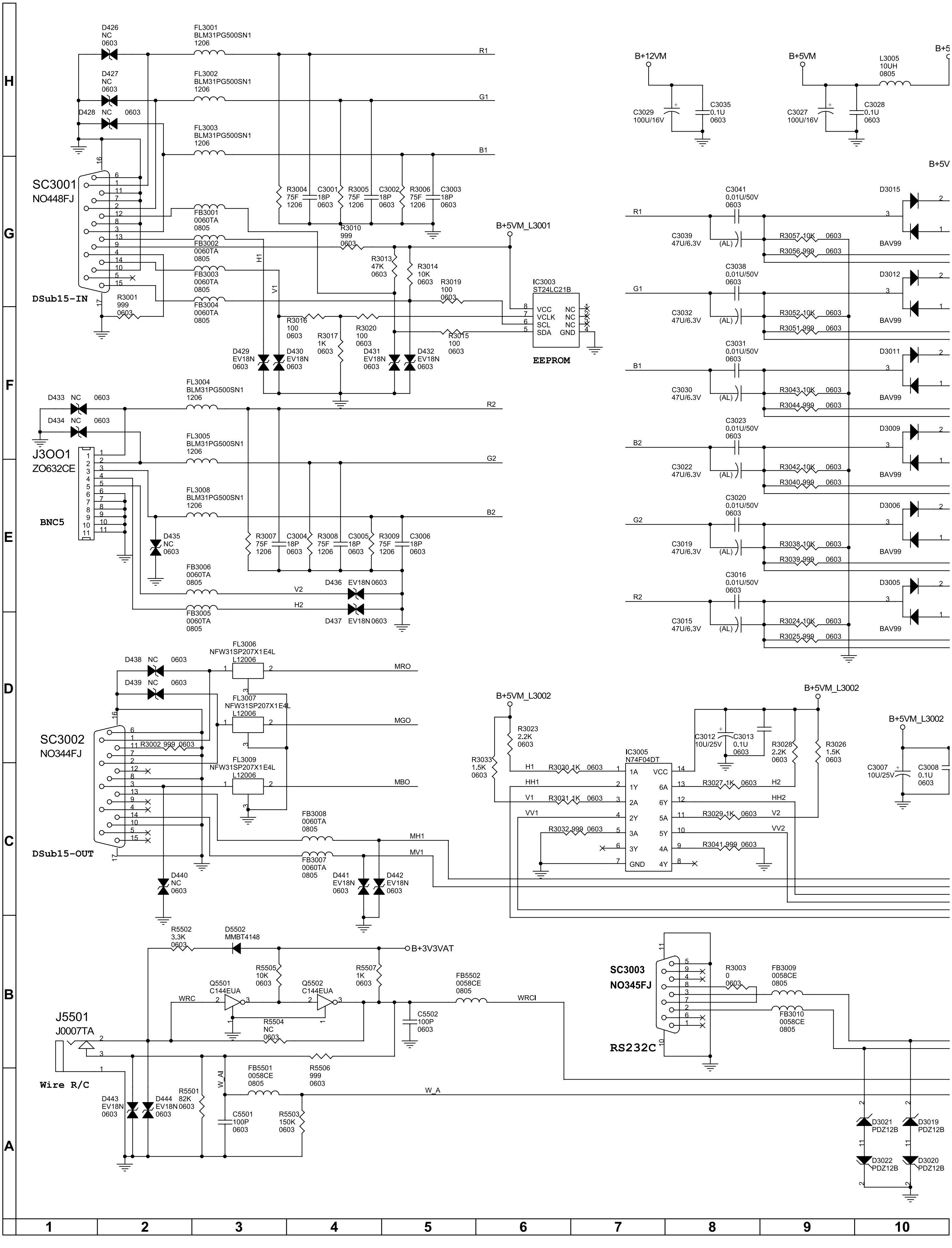
# ■MAIN UNIT / HAUPTEINHEIT-10/10

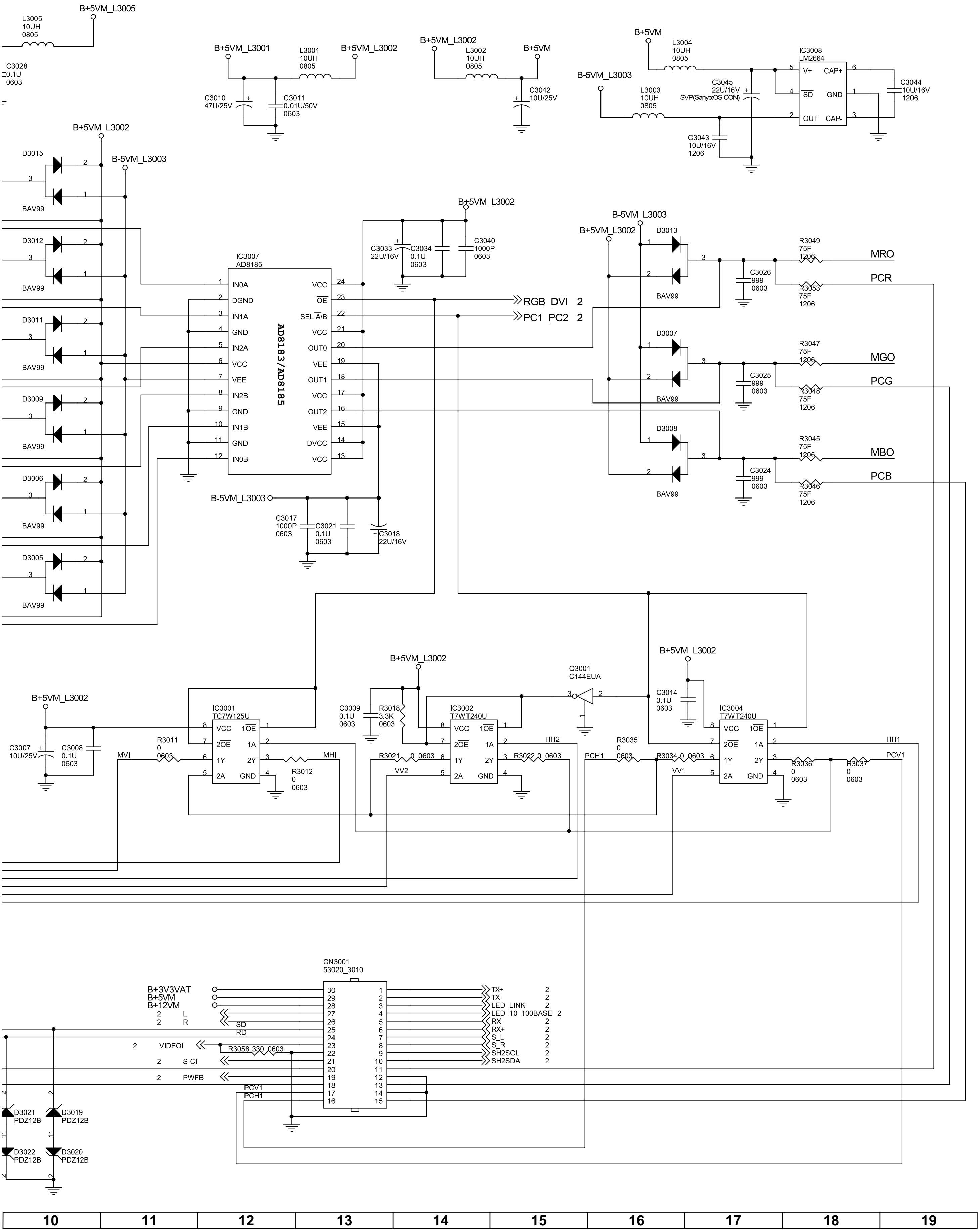


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
5VW
R7268 NC 0603
R7266 NC 0603
3,4,6,8 SH2SDA
3,4,6,8 SH2SCL
R7265 33 0603
R7267 33 0603
C7210 NC
C7211 NC
R7236 1K 0603
R7234 NC
FAN3 R7262 22F 0603
FAN2 R7261 22F 0603
FAN1 R7263 22F 0603
TP7203
IC7205 W8378 2D
W83782D
LQFP48
R7247 NC
R7250 NC
CLKIN
IOR#
IOW#
D7
D6
D5
D4
D3
D2
PWM3
PWM2
PWM1
D1/PWMO4
D0/PWMO3
PWMO1
R7231 0 0603
ADRMSEL
R7230 0 0603
R7235 NC
R7232 0 0603
SA2
SA1
SA0
R7241 NC
R7237 NC
R7242 0 0603
CS#
OVT#
SMI#
FAN1
FAN2
FAN3/PWMO2
SCL
SDA
VCOREA
VINR0
VREF
VTIN1
VTIN2
VTIN3
+3.3VIN
+5VIN
+12VIN
-12VIN
5VSB
-5VIN
VBAT
VID0
VID1
VID2
VID3
VID4
MR
CASEOPEN#
BEEP/GPO#
GNDD
GNDA
VCC
B+5VM
FB7212 MLB-321611-0080P 1206
X7201
NC
GND
VCC
OUT
Crystal Oscillators
14.318MHZ(Oscillators)
C7215 0.1U 0603
L7201 BK 1608HS47 0-T 0603
L7202 BK 1608HS47 0-T CLKIN 0603
R7246 10KF 0603
R7245 40.2KF 0603
R7249 10KF 0603
R7248 40.2KF 0603
R7244 10KF 0603
R7243 10KF 0603
R7240 10KF 0603
R7239 10KF 0603
R7238 10KF 0603
T1
T2
T3
R7233 0 0603 CN1100 HL
R7311 NC 0603
電壓式版本控制
R7310 NC 0603
R7251 NC 0603
R7254 0 0603 CN1101 HL
R7253 NC 0603 HV12
R7257 0 0603 CN1102 HL
R7256 NC 0603 5VW
C7403 10U/25V AL
C7406 0.1U 0603
R7255 15KF 0603
R7258 15KF 0603
FB7211 MLB-321611-0080P 1206
C7212 0.1U 0603
C7213 10U/16V 1206
C7214 10U/25V AL
IC7209 DS1815R-10
C7234 0.1U 0603
R7313 NC 0603
RESETW
R7264 18.7K/1% 0603
R7260 4.7K 0603
R7259 10KF 0603
SC1
CON9
SC4
B+3V3
R7316 NC 0603
R7318 10KF 0603
R7321 NC 0603
R7322 NC 0603
FB7217
FB7216
8 TEMP3
R7317 NC 0603
R7319 NC 0603
R7284 10KF 0603
R7283 40.2KF 0603
R7287 10KF 0603
R7286 40.2KF 0603
R7282 10KF 0603
R7281 10KF 0603
R7306 33 0603
R7307 33 0603
C7224 NC
C7225 NC
R7274 1K 0603
R7272 NC
FAN6 R7304 22F 0603
FAN5 R7303 22F 0603
FAN4 R7305 22F 0603
TP7206
R7278 10KF 0603 TP7211
R7277 10KF 0603 TP7205
R7276 10KF 0603 TP7204
R7312 0 0603 CN1103 HL R7289 NC 0603 B+3V3AT
R7292 0 0603 CN1104 HL R7291 NC 0603 HV12
R7295 0 0603 CN1105 HL R7294 NC 0603 5VW
C7221 10U/25V AL
C7220 0.1U 0603
R7290 15KF 0603
R7293 15KF 0603
R7296 15KF 0603
IC7206 W8378 2D
R7285 NC
R7288 NC
PWM6
PWM5
PWM4
R7270 0 0603
R7269 0 0603
R7273 NC
R7271 NC 0603
R7279 0
R7275 NC
R7280 0 0603
FB7215 MLB-321611-0080P 1206
C7226 0.1U 0603
C7228 10U/16V 1206
C7229 10U/25V AL
R7308 18.7K/1% 0603
R7302 4.7K 0603
R7301 10KF 0603
FB MLB-3216 1206
B+5VMO
FB7210 MLB-321611-0080P 1206
HV12
FB7214 MLB-321611-0080P 1206
IC7207 PQ20WZ 11
L7204 SIWC73-220 22UH
B+13V
C7217 100U/16V
VIN
VOUT
CTL
GND
ADJ
R7299 7.32K/1% 0603
C7222 100U/16V
C7223 0.1U 0603
R7300 2.05KF 0603
1,4,9 FANPOW
R7330 100 0603
FB7213 MLB-321611-0080P 1206
IC7208 PQ20WZ 11
L7203 SIWC73-220 22UH
C7216 100U/16V
R7297 7.32K/1% 0603
C7218 100U/16V
C7219 0.1U 0603
R7298 2.05KF 0603
R7331 100 0603


2N7002
3 Drain
1 Gate
2 Source
MMBT4403
3 C
B E
1 2
SC1 SC2 SC3 SC4 SC5 SC6 SC7
CON9
Thermal Sensor(DMD)
B+3V3
R7316
R7317
R7318 10KF 0603
R7321 NC 0603
R7319 NC 0603
R7320 NC 0603
FB7217
FB7216 MLB-201209-0080P-N2 0805
NC 0805
C7233 100P 0603
R7339 0 0603
CN7205 85204-0200
FB7209 MLB-321611-0080P 1206
B+5VM
5VW
C7206 0.1U 0603
C7207 10U/16V 1206
0080P
12VOUT FOR FAN
L7204 SIWC73-220 22UH
12VF
C7223 0.1U 0603
C7231 100U/16V
C7232 0.1U 0603
L7203 SIWC73-220 22UH
R7314 0 0603
12V
C7219 0.1U 0603
C7227 100U/16V
C7230 0.1U 0603
PWM1
R7402 510 0603
Q7401 2N7002 SOT23
R7406 4.7K 0603
R7407 1.5K 0603
Q7404 MMBT4403
R7412 0 0603
C7401 100U/16V AL
C7404 100U/16V AL
R7420 NC
D7401 MMBD4148
R7424 4.7K 0603
FAN1
R7418 27KF 0603
R7414 10KF 0603
CN1100_HL
R7405 NC 0603
FB7413 MLB-321611-0080P 1206
FB7401 MLB-321611-0080P 1206
FB7403 MLB-321611-0080P 1206
C7407 100P 0603
C7410 0.1U 0603
CN7401 85204-0400
BLOWER (DMD) FAN8 F00
PWM2
R7429 510 0603
Q7409 2N7002 SOT23
R7436 4.7K 0603
R7437 1.5K 0603
Q7412 MMBT4403
R7442 0 0603
C7415 100U/16V AL
C7418 100U/16V AL
R7449 NC
D7406 MMBD4148
R7452 4.7K 0603
FAN2
R7447 27KF 0603
R7443 10KF 0603
CN1101_HL
R7431 NC 0603
FB7414 MLB-321611-0080P 1206
FB7411 MLB-321611-0080P 1206
FB7412 MLB-321611-0080P 1206
C7421 100P 0603
C7424 0.1U 0603
CN7402 85204-0400
FAN (OUTLET RIGHT)FAN4 F00
PWM3
R7401 510 0603
Q7402 2N7002 SOT23
R7408 4.7K 0603
R7409 1.5K 0603
Q7405 MMBT4403
R7413 0 0603
C7402 100U/16V AL
C7405 100U/16V AL
R7421 NC
D7402 MMBD4148
R7425 4.7K 0603
FAN3
R7419 27KF 0603
R7415 10KF 0603
CN1102_HL
R7403 NC 0603
FB7415 MLB-321611-0080P 1206
FB7402 MLB-321611-0080P 1206
FB7404 MLB-321611-0080P 1206
C7408 100P 0603
C7411 0.1U 0603
CN7403 85204-0300
FAN (OUTLET LEFT)FAN6 F00
PWM4
R7428 510 0603
Q7408 2N7002 SOT23
R7434 4.7K 0603
R7435 1.5K 0603
Q7411 MMBT4403
R7440 0 0603
C7414 100U/16V AL
C7417 100U/16V AL
R7448 NC
D7405 MMBD4148
R7451 4.7K 0603
FAN4
R7445 27KF 0603
R7441 10KF 0603
CN1103_HL
R7430 NC 0603
FB7416 MLB-321611-0080P 1206
FB7409 MLB-321611-0080P 1206
FB7410 MLB-321611-0080P 1206
C7420 100P 0603
C7423 0.1U 0603
CN7404 85204-0400
BLOWER (LAMP LEFT) FAN3 F00
PWM5
R7453 510 0603
Q7413 2N7002 SOT23
R7454 4.7K 0603
R7455 1.5K 0603
Q7414 MMBT4403
R7456 0 0603
C7425 100U/16V AL
C7426 100U/16V AL
R7457 NC
D7407 MMBD4148
R7458 4.7K 0603
FAN5
R7460 27KF 0603
R7459 10KF 0603
CN1104_HL
R7461 NC 0603
FB7417 MLB-321611-0080P 1206
FB7418 MLB-321611-0080P 1206
FB7419 MLB-321611-0080P 1206
C7428 100P 0603
C7427 0.1U 0603
CN7405 85204-0300
BLOWER (LAMP RIGHT) FAN2 F00
PWM6
R7462 510 0603
Q7415 2N7002 SOT23
R7463 4.7K 0603
R7464 1.5K 0603
Q7416 MMBT4403
R7465 0 0603
C7429 100U/16V AL
C7430 100U/16V AL
R7466 NC
D7408 MMBD4148
R7467 4.7K 0603
FAN6
R7468 27KF 0603
R7469 10KF 0603
CN1105_HL
R7470 NC 0603
FB7420 MLB-321611-0080P 1206
FB7421 MLB-321611-0080P 1206
FB7422 MLB-321611-0080P 1206
C7431 100P 0603
C7432 0.1U 0603
CN7406 85204-0300
FAN (POWER&BALLAST) FAN1 F00
10 11 12 13 14 15 16 17 18 19

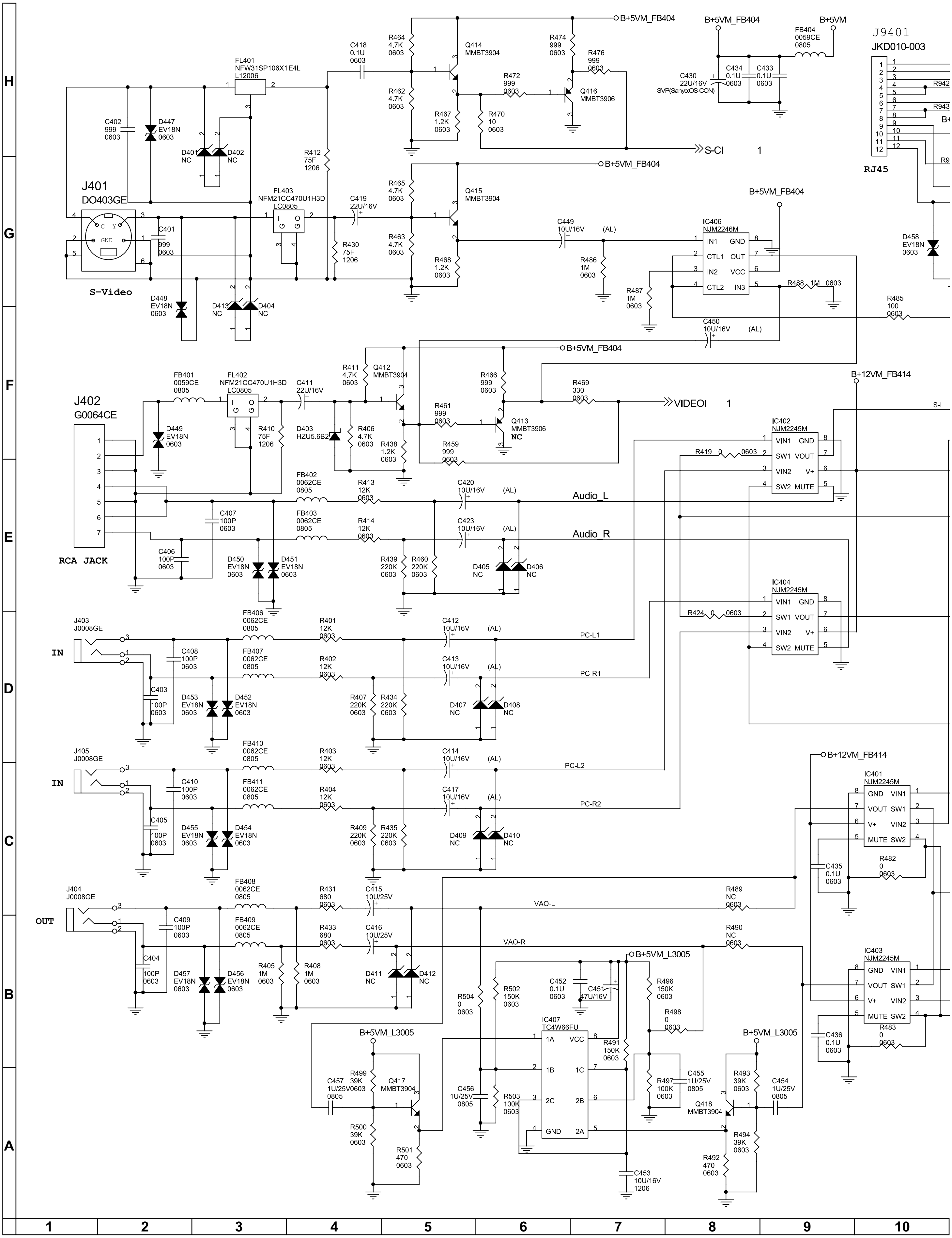
# ■TERMINAL UNIT / ANSCHLUSSEINHEIT-1/2


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
D426 NC 0603
D427 NC 0603
D428 NC 0603
FL3001 BLM31PG500SN1 1206
FL3002 BLM31PG500SN1 1206
FL3003 BLM31PG500SN1 1206
R1
G1
B1
SC3001
NO448FJ
DSub15-IN
FB3001 0060TA 0805
FB3002 0060TA 0805
FB3003 0060TA 0805
FB3004 0060TA 0805
R3001 999 0603
H1
V1
R3004 75F 1206
C3001 18P 0603
R3005 75F 1206
C3002 18P 0603
R3006 75F 1206
C3003 18P 0603
R3010 999 0603
R3013 47K 0603
R3014 10K 0603
R3019 100 0603
R3016 100 0603
R3017 1K 0603
R3020 100 0603
R3015 100 0603
B+5VM_L3001
IC3003 ST24LC21B
VCC
VCLK
SCL
SDA
NC
NC
NC
GND
EEPROM
D429 EV18N 0603
D430 EV18N 0603
D431 EV18N 0603
D432 EV18N 0603
B+12VM
C3029 100U/16V
C3035 0.1U 0603
B+5VM
C3027 100U/16V
C3028 0.1U 0603
L3005 10UH 0805
B+5
B+5V
C3041 0.01U/50V 0603
C3039 47U/6.3V
(AL)
R3057 10K 0603
R3056 999 0603
D3015
BAV99
C3038 0.01U/50V 0603
C3032 47U/6.3V
R3052 10K 0603
R3051 999 0603
D3012
C3031 0.01U/50V 0603
C3030 47U/6.3V
R3043 10K 0603
R3044 999 0603
D3011
B2
C3023 0.01U/50V 0603
C3022 47U/6.3V
R3042 10K 0603
R3040 999 0603
D3009
G2
C3020 0.01U/50V 0603
C3019 47U/6.3V
R3038 10K 0603
R3039 999 0603
D3006
R2
C3016 0.01U/50V 0603
C3015 47U/6.3V
R3024 10K 0603
R3025 999 0603
D3005
D433 NC 0603
D434 NC 0603
FL3004 BLM31PG500SN1 1206
FL3005 BLM31PG500SN1 1206
FL3008 BLM31PG500SN1 1206
J3OO1
ZO632CE
BNC5
D435 NC 0603
R3007 75F 1206
C3004 18P 0603
R3008 75F 1206
C3005 18P 0603
R3009 75F 1206
C3006 18P 0603
FB3006 0060TA 0805
FB3005 0060TA 0805
V2
H2
D436 EV18N 0603
D437 EV18N 0603
FL3006 NFW31SP207X1E4L L12006
FL3007 NFW31SP207X1E4L L12006
FL3009 NFW31SP207X1E4L L12006
D438 NC 0603
D439 NC 0603
MRO
MGO
MBO
SC3002
NO344FJ
R3002 999 0603
DSub15-OUT
FB3008 0060TA 0805
FB3007 0060TA 0805
MH1
MV1
D440 NC 0603
D441 EV18N 0603
D442 EV18N 0603
B+5VM_L3002
R3023 2.2K 0603
R3033 1.5K 0603
IC3005 N74F04DT
1A
1Y
2A
2Y
3A
3Y
GND
VCC
6A
6Y
5A
5Y
4A
4Y
H1
HH1
V1
VV1
R3030 1K 0603
R3031 1K 0603
R3032 999 0603
R3027 1K 0603
R3029 1K 0603
R3041 999 0603
H2
HH2
V2
VV2
C3012 10U/25V
C3013 0.1U 0603
R3028 2.2K 0603
R3026 1.5K 0603
C3007 10U/25V
C3008 0.1U 0603
R5502 3.3K 0603
D5502 MMBT4148
B+3V3VAT
R5505 10K 0603
R5507 1K 0603
Q5501 C144EUA
Q5502 C144EUA
WRC
R5504 NC 0603
FB5502 0058CE 0805
WRCI
C5502 100P 0603
J5501
J0007TA
Wire R/C
D443 EV18N 0603
D444 EV18N 0603
R5501 82K 0603
W_AI
FB5501 0058CE 0805
R5506 999 0603
W_A
C5501 100P 0603
R5503 150K 0603
SC3003
NO345FJ
RS232C
R3003 0 0603
FB3009 0058CE 0805
FB3010 0058CE 0805
D3021 PDZ12B
D3019 PDZ12B
D3022 PDZ12B
D3020 PDZ12B

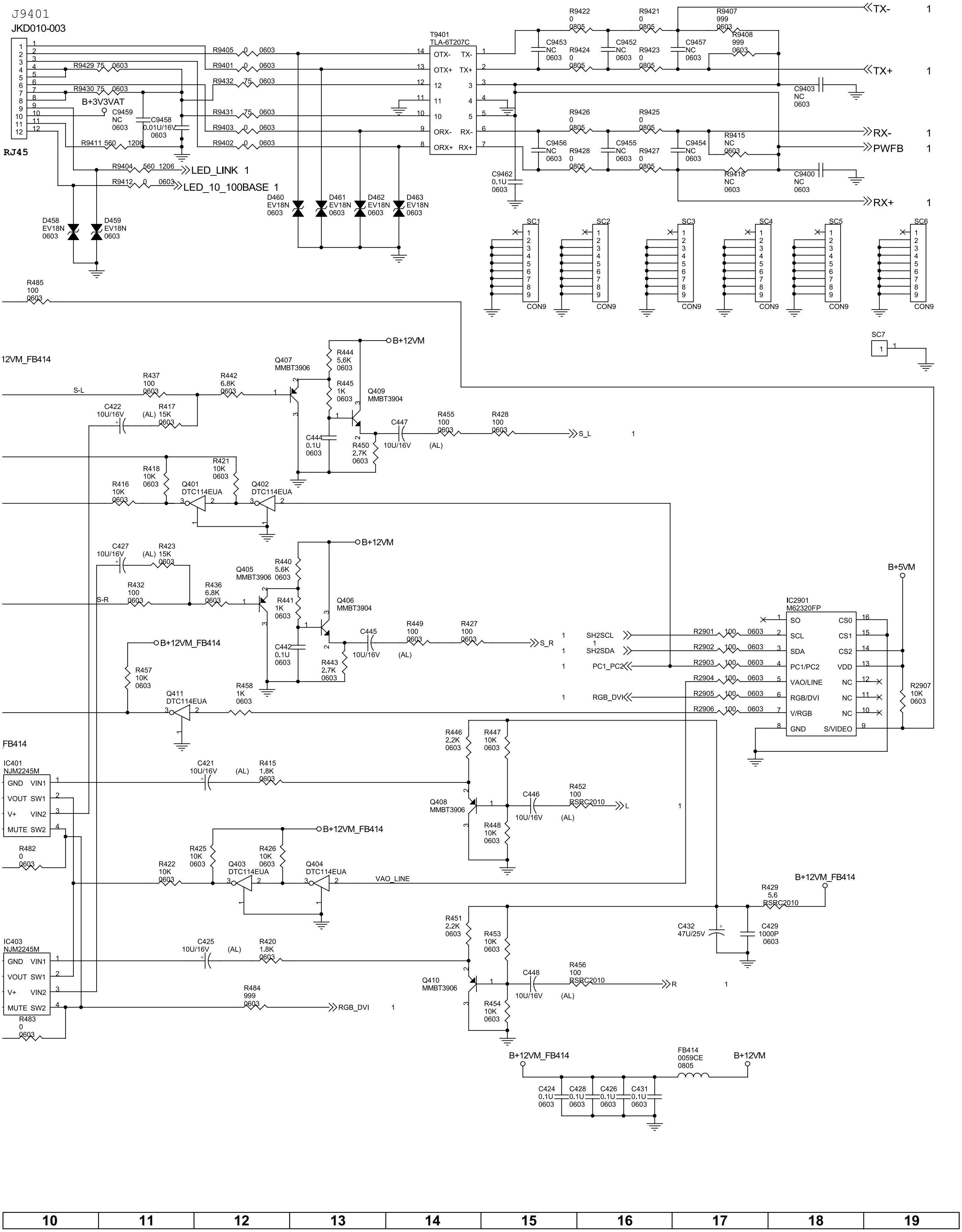


B+5VM_L3005
L3005
10UH
0805
C3028
0.1U
0603
B+5VM_L3001
L3001
10UH
0805
B+5VM_L3002
C3010
47U/25V
C3011
0.01U/50V
0603
B+5VM_L3002
L3002
10UH
0805
B+5VM
C3042
10U/25V
B+5VM
L3004
10UH
0805
IC3008
LM2664
V+
CAP+
SD
GND
OUT
CAP-
C3044
10U/16V
1206
B-5VM_L3003
L3003
10UH
0805
C3045
22U/16V
SVP(Sanyo:OS-CON)
C3043
10U/16V
1206
B+5VM_L3002
B-5VM_L3003
D3015
BAV99
D3012
BAV99
D3011
BAV99
D3009
BAV99
D3006
BAV99
D3005
BAV99
IC3007
AD8185
AD8183/AD8185
IN0A
DGND
IN1A
GND
IN2A
VCC
VEE
IN2B
GND
IN1B
GND
IN0B
VCC
OE
SEL A/B
VCC
OUT0
VEE
OUT1
VCC
OUT2
VEE
DVCC
VCC
B+5VM_L3002
C3033
22U/16V
C3034
0.1U
0603
C3040
1000P
0603
RGB_DVI 2
PC1_PC2 2
B-5VM_L3003
C3017
1000P
0603
C3021
0.1U
0603
C3018
22U/16V
B-5VM_L3003
B+5VM_L3002
D3013
BAV99
D3007
BAV99
D3008
BAV99
R3049
75F
1206
MRO
R3053
75F
1206
PCR
C3026
999
0603
R3047
75F
1206
MGO
R3048
75F
1206
PCG
C3025
999
0603
R3045
75F
1206
MBO
R3046
75F
1206
PCB
C3024
999
0603
B+5VM_L3002
C3007
10U/25V
C3008
0.1U
0603
IC3001
TC7W125U
VCC
1OE
2OE
1A
1Y
2Y
2A
GND
R3011
0
0603
MVI
MHI
R3012
0
0603
B+5VM_L3002
C3009
0.1U
0603
R3018
3.3K
0603
IC3002
T7WT240U
R3021 0 0603
VV2
R3022 0 0603
HH2
Q3001
C144EUA
B+5VM_L3002
C3014
0.1U
0603
IC3004
T7WT240U
R3035
0
0603
PCH1
R3034 0 0603
VV1
R3036
0
0603
R3037
0
0603
HH1
PCV1
CN3001
53020_3010
B+3V3VAT
B+5VM
B+12VM
2 L
2 R
SD
RD
2 VIDEOI
R3058 330 0603
2 S-CI
2 PWFB
PCV1
PCH1
TX+ 2
TX- 2
LED_LINK 2
LED_10_100BASE 2
RX- 2
RX+ 2
S_L 2
S_R 2
SH2SCL 2
SH2SDA 2
D3021
PDZ12B
D3019
PDZ12B
D3022
PDZ12B
D3020
PDZ12B
10
11
12
13
14
15
16
17
18
19

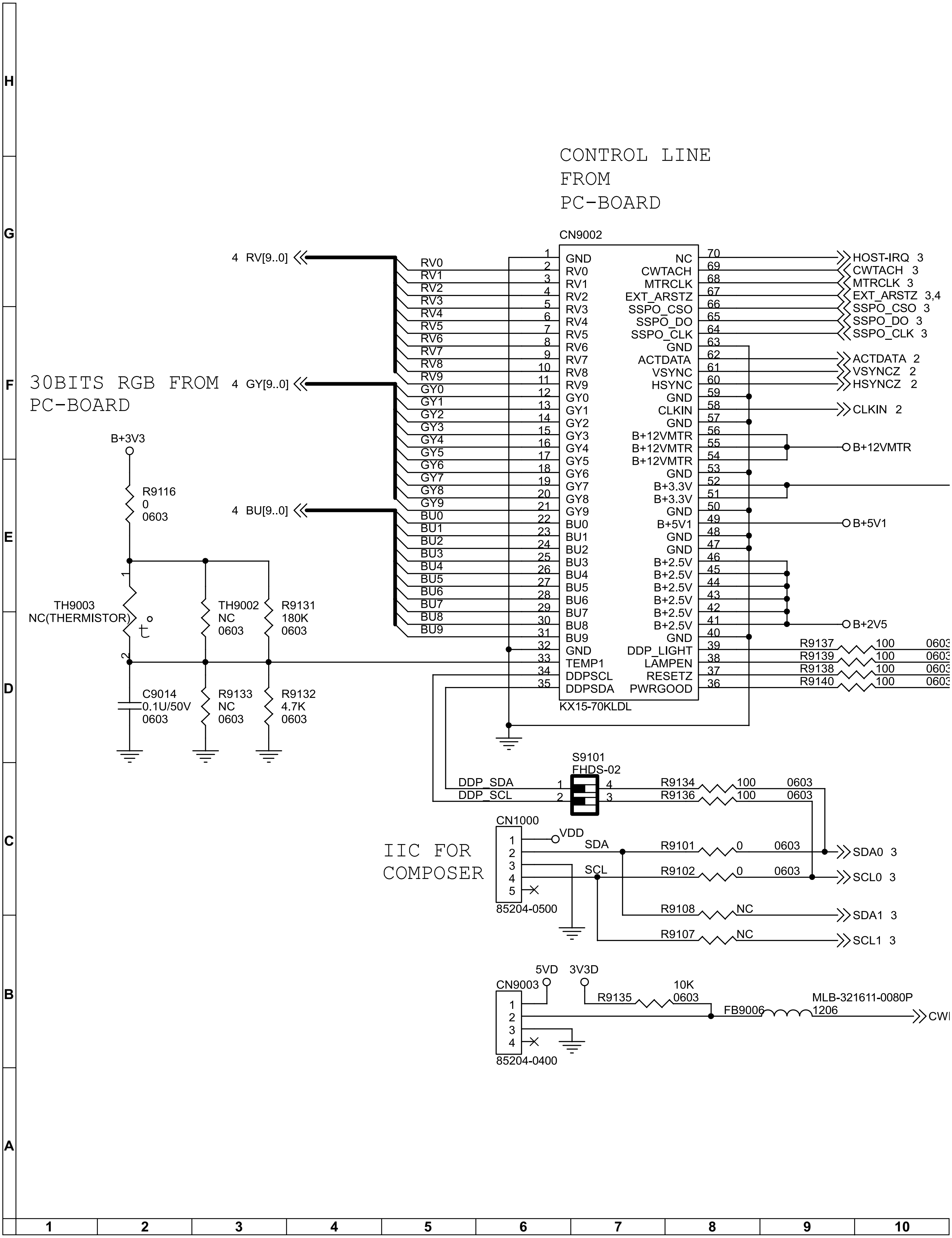
# ■TERMINAL UNIT / ANSCHLUSSEINHEIT-2/2

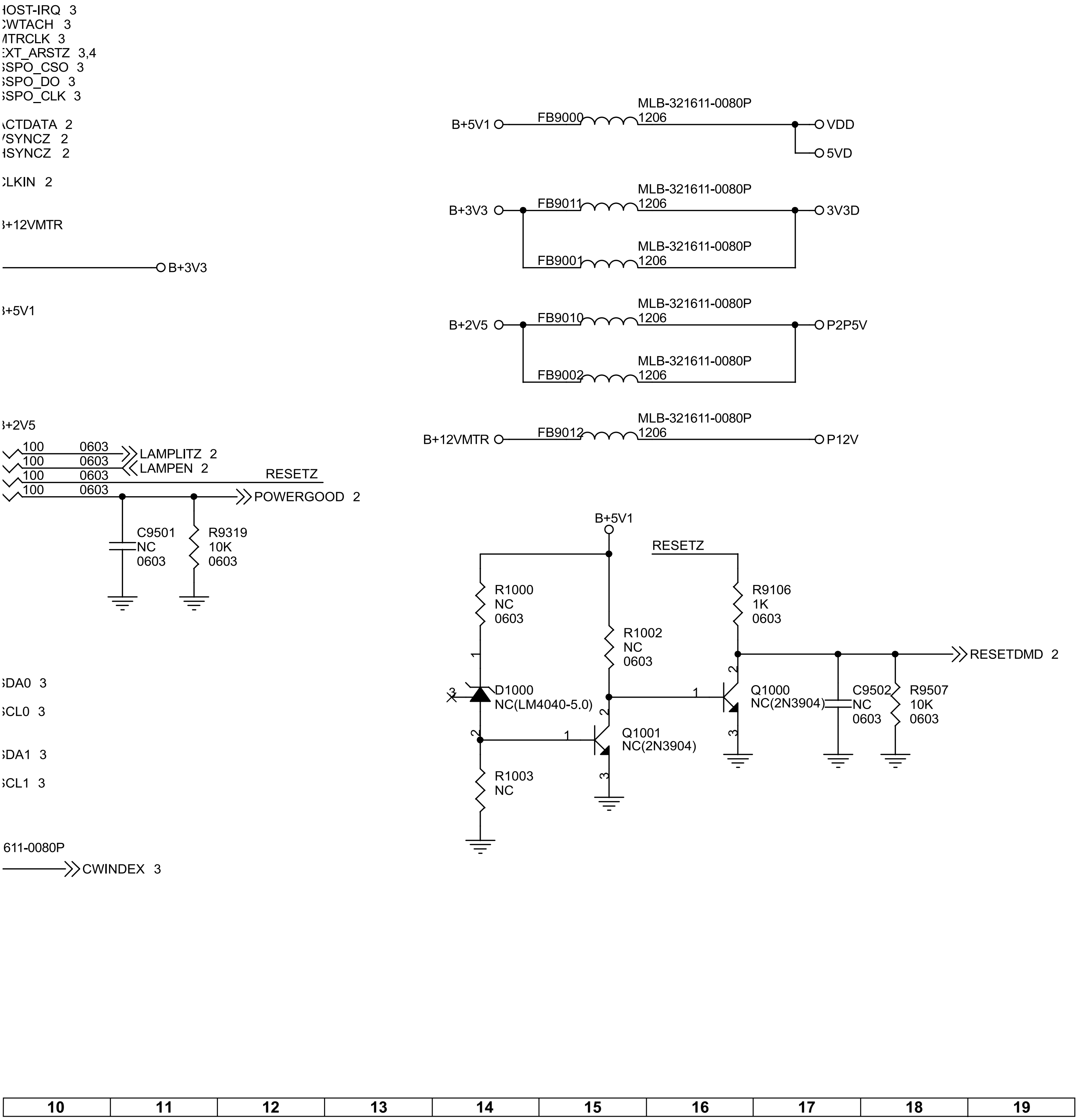


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
J401
DO403GE
S-Video
J402
G0064CE
RCA JACK
J403
J0008GE
IN
J405
J0008GE
IN
J404
J0008GE
OUT
J9401
JKD010-003
RJ45
FL401
NFW31SP106X1E4L
L12006
FL402
NFM21CC470U1H3D
LC0805
FL403
NFM21CC470U1H3D
LC0805
FB401
0059CE
0805
FB402
0062CE
0805
FB403
0062CE
0805
FB404
0059CE
0805
FB406
0062CE
0805
FB407
0062CE
0805
FB408
0062CE
0805
FB409
0062CE
0805
FB410
0062CE
0805
FB411
0062CE
0805
Q412
MMBT3904
Q413
MMBT3906
NC
Q414
MMBT3904
Q415
MMBT3904
Q416
MMBT3906
Q417
MMBT3904
Q418
MMBT3904
IC401
NJM2245M
IC402
NJM2245M
IC403
NJM2245M
IC404
NJM2245M
IC406
NJM2246M
IC407
TC4W66FU
IN1
GND
CTL1
OUT
IN2
VCC
CTL2
IN3
VIN1
SW1
VIN2
SW2
VOUT
V+
MUTE
1A
1B
2C
2A
1C
2B
B+5VM_FB404
B+5VM
B+12VM_FB414
B+5VM_L3005
S-CI 1
VIDEOI 1
Audio_L
Audio_R
PC-L1
PC-R1
PC-L2
PC-R2
VAO-L
VAO-R
S-L
C401 999 0603
C402 999 0603
C403 100P 0603
C404 100P 0603
C405 100P 0603
C406 100P 0603
C407 100P 0603
C408 100P 0603
C409 100P 0603
C410 100P 0603
C411 22U/16V
C412 10U/16V (AL)
C413 10U/16V (AL)
C414 10U/16V (AL)
C415 10U/25V
C416 10U/25V
C417 10U/16V (AL)
C418 0.1U 0603
C419 22U/16V
C420 10U/16V (AL)
C423 10U/16V (AL)
C430 22U/16V SVP(Sanyo:OS-CON)
C433 0.1U 0603
C434 0.1U 0603
C435 0.1U 0603
C436 0.1U 0603
C449 10U/16V (AL)
C450 10U/16V (AL)
C451 47U/16V
C452 0.1U 0603
C453 10U/16V 1206
C454 1U/25V 0805
C455 1U/25V 0805
C456 1U/25V 0805
C457 1U/25V 0805
D401 NC
D402 NC
D403 HZU5.6B2
D404 NC
D405 NC
D406 NC
D407 NC
D408 NC
D409 NC
D410 NC
D411 NC
D412 NC
D413 NC
D447 EV18N 0603
D448 EV18N 0603
D449 EV18N 0603
D450 EV18N 0603
D451 EV18N 0603
D452 EV18N 0603
D453 EV18N 0603
D454 EV18N 0603
D455 EV18N 0603
D456 EV18N 0603
D457 EV18N 0603
D458 EV18N 0603
R401 12K 0603
R402 12K 0603
R403 12K 0603
R404 12K 0603
R405 1M 0603
R406 4.7K 0603
R407 220K 0603
R408 1M 0603
R409 220K 0603
R410 75F 1206
R411 4.7K 0603
R412 75F 1206
R413 12K 0603
R414 12K 0603
R419 0 0603
R424 0 0603
R430 75F 1206
R431 680 0603
R433 680 0603
R434 220K 0603
R435 220K 0603
R438 1.2K 0603
R439 220K 0603
R459 999 0603
R460 220K 0603
R461 999 0603
R462 4.7K 0603
R463 4.7K 0603
R464 4.7K 0603
R465 4.7K 0603
R466 999 0603
R467 1.2K 0603
R468 1.2K 0603
R469 330 0603
R470 10 0603
R472 999 0603
R474 999 0603
R476 999 0603
R482 0 0603
R483 0 0603
R485 100 0603
R486 1M 0603
R487 1M 0603
R488 1M 0603
R489 NC 0603
R490 NC 0603
R491 150K 0603
R492 470 0603
R493 39K 0603
R494 39K 0603
R496 150K 0603
R497 100K 0603
R498 0 0603
R499 39K 0603
R500 39K 0603
R501 470 0603
R502 150K 0603
R503 100K 0603
R504 0 0603
R942
R943
R9
B-


J9401
JKD010-003
RJ45
R9429 75 0603
R9430 75 0603
B+3V3VAT
C9459 NC 0603
C9458 0.01U/16V 0603
R9411 560 1206
R9404 560 1206
LED_LINK 1
R9412 0 0603
LED_10_100BASE 1
D458 EV18N 0603
D459 EV18N 0603
R9405 0 0603
R9401 0 0603
R9432 75 0603
R9431 75 0603
R9403 0 0603
R9402 0 0603
D460 EV18N 0603
D461 EV18N 0603
D462 EV18N 0603
D463 EV18N 0603
T9401
TLA-6T207C
OTX- TX-
OTX+ TX+
ORX- RX-
ORX+ RX+
R9422 0 0805
R9421 0 0805
R9407 999 0603
R9408 999 0603
C9453 NC 0603
C9452 NC 0603
C9457 NC 0603
R9424 0 0805
R9423 0 0805
TX- 1
TX+ 1
C9403 NC 0603
R9426 0 0805
R9425 0 0805
C9456 NC 0603
C9455 NC 0603
C9454 NC 0603
R9428 0 0805
R9427 0 0805
R9415 NC 0603
R9418 NC 0603
C9400 NC 0603
C9462 0.1U 0603
RX- 1
PWFB 1
RX+ 1
SC1 SC2 SC3 SC4 SC5 SC6
CON9
SC7
R485 100 0603
B+12VM
12VM_FB414
Q407 MMBT3906
R444 5.6K 0603
R445 1K 0603
Q409 MMBT3904
S-L
R437 100 0603
R442 6.8K 0603
C422 10U/16V
(AL)
R417 15K 0603
C444 0.1U 0603
R450 2.7K 0603
C447 10U/16V
R455 100 0603
R428 100 0603
S_L 1
R418 10K 0603
R421 10K 0603
R416 10K 0603
Q401 DTC114EUA
Q402 DTC114EUA
C427 10U/16V
R423 15K 0603
R440 5.6K 0603
Q405 MMBT3906
R432 100 0603
S-R
R436 6.8K 0603
R441 1K 0603
Q406 MMBT3904
C442 0.1U 0603
R443 2.7K 0603
C445 10U/16V
R449 100 0603
R427 100 0603
S_R
B+12VM_FB414
R457 10K 0603
Q411 DTC114EUA
R458 1K 0603
B+5VM
IC2901
M62320FP
SO CS0
SCL CS1
SDA CS2
PC1/PC2 VDD
VAO/LINE NC
RGB/DVI NC
V/RGB NC
GND S/VIDEO
SH2SCL 1
SH2SDA 1
PC1_PC2 1
RGB_DVI 1
R2901 100 0603
R2902 100 0603
R2903 100 0603
R2904 100 0603
R2905 100 0603
R2906 100 0603
R2907 10K 0603
FB414
IC401 NJM2245M
GND VIN1
VOUT SW1
V+ VIN2
MUTE SW2
R482 0 0603
C421 10U/16V
R415 1.8K 0603
R446 2.2K 0603
R447 10K 0603
Q408 MMBT3906
C446 10U/16V
R452 100 RSRC2010
L 1
R448 10K 0603
R425 10K 0603
R426 10K 0603
Q403 DTC114EUA
Q404 DTC114EUA
R422 10K 0603
VAO_LINE
R429 5.6 RSRC2010
C432 47U/25V
C429 1000P 0603
IC403 NJM2245M
C425 10U/16V
R420 1.8K 0603
R451 2.2K 0603
R453 10K 0603
Q410 MMBT3906
C448 10U/16V
R456 100 RSRC2010
R 1
R454 10K 0603
R484 999 0603
RGB_DVI 1
R483 0 0603
FB414 0059CE 0805
C424 0.1U 0603
C428 0.1U 0603
C426 0.1U 0603
C431 0.1U 0603
10 11 12 13 14 15 16 17 18 19

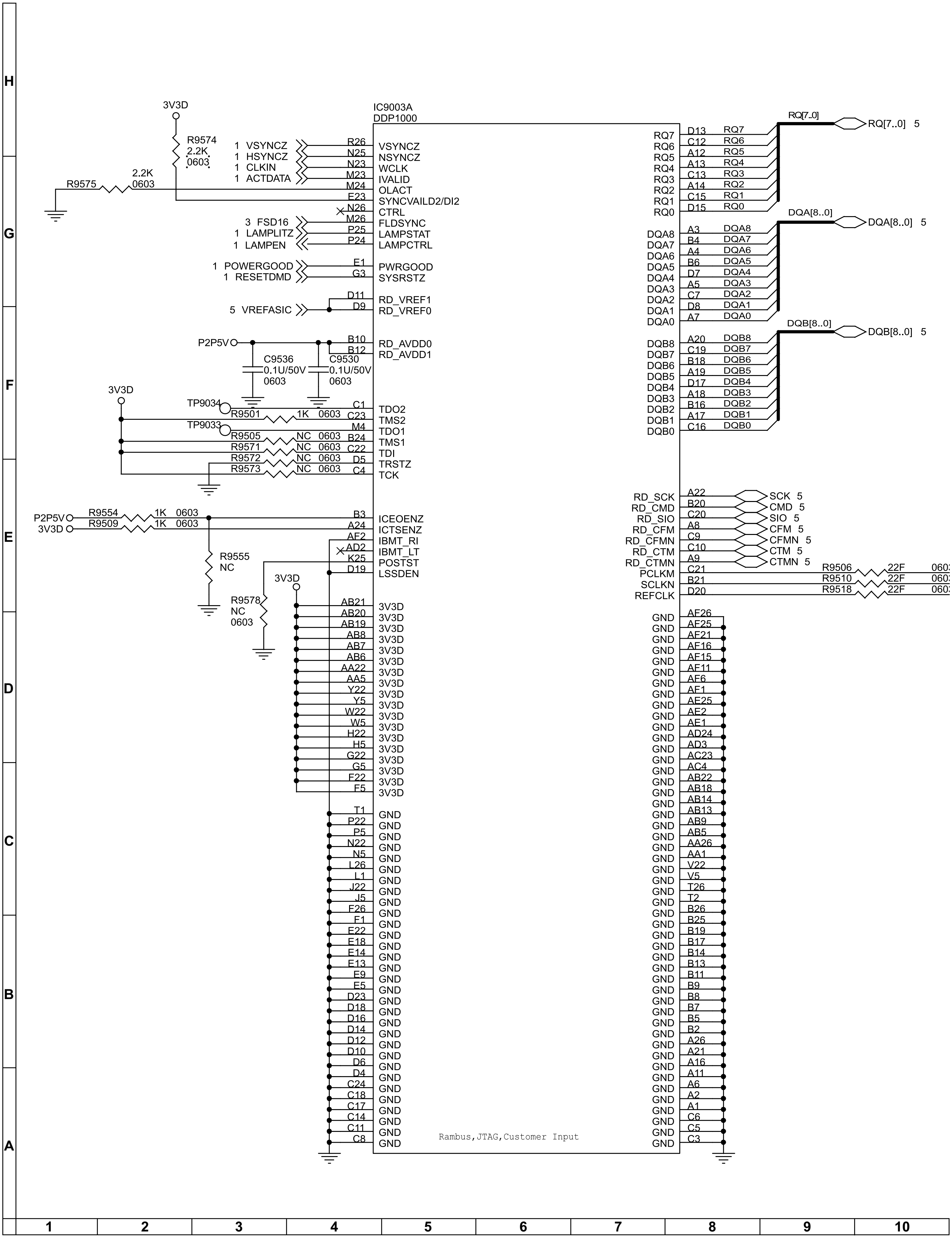
# ■FORMATTER UNIT / FORMATIERIEREINHEIT-1/6

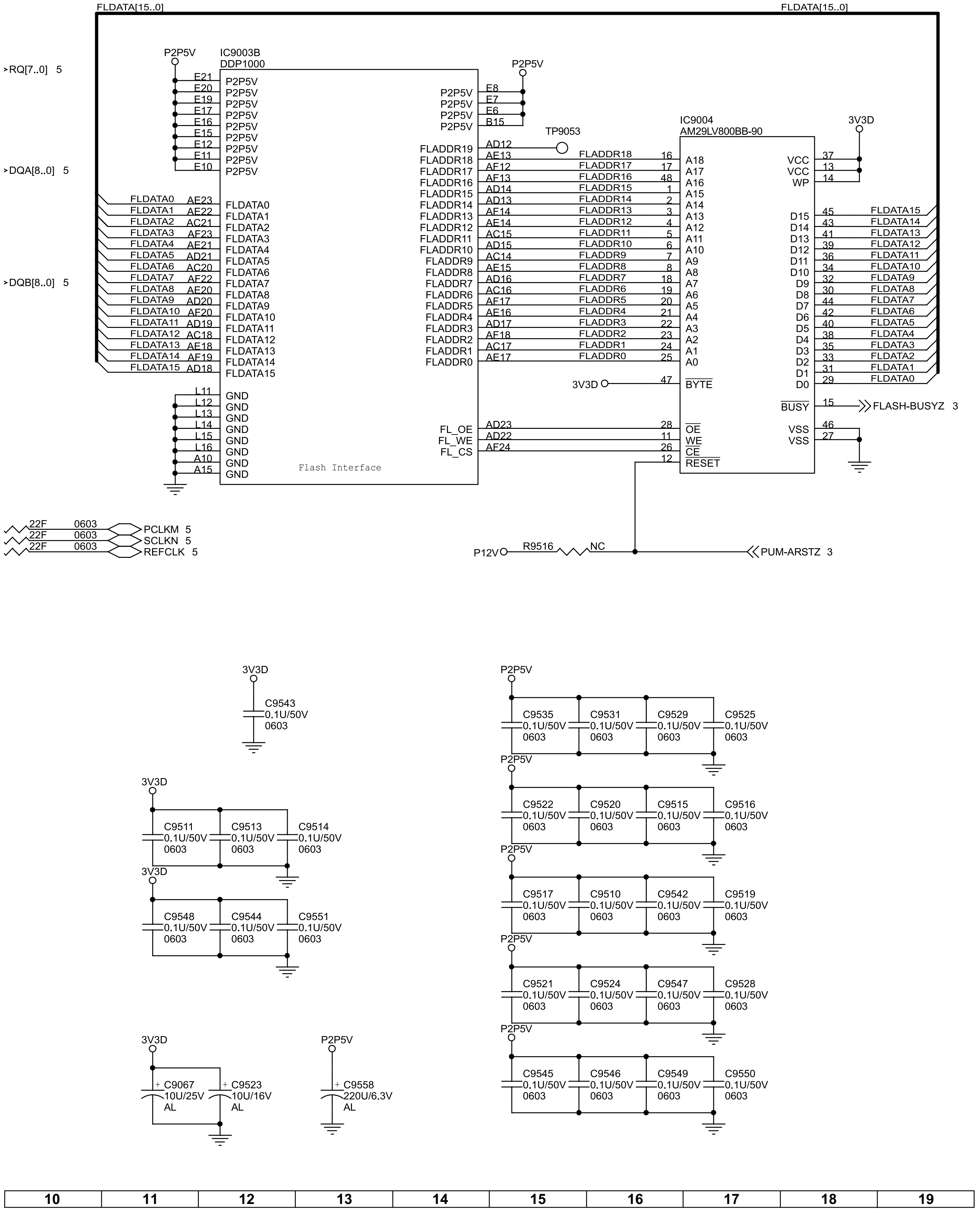

H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
CONTROL LINE
FROM
PC-BOARD
CN9002
KX15-70KLDL
4 RV[9..0]
4 GY[9..0]
4 BU[9..0]
30BITS RGB FROM
PC-BOARD
RV0
RV1
RV2
RV3
RV4
RV5
RV6
RV7
RV8
RV9
GY0
GY1
GY2
GY3
GY4
GY5
GY6
GY7
GY8
GY9
BU0
BU1
BU2
BU3
BU4
BU5
BU6
BU7
BU8
BU9
1 GND
2 RV0
3 RV1
4 RV2
5 RV3
6 RV4
7 RV5
8 RV6
9 RV7
10 RV8
11 RV9
12 GY0
13 GY1
14 GY2
15 GY3
16 GY4
17 GY5
18 GY6
19 GY7
20 GY8
21 GY9
22 BU0
23 BU1
24 BU2
25 BU3
26 BU4
27 BU5
28 BU6
29 BU7
30 BU8
31 BU9
32 GND
33 TEMP1
34 DDPSCL
35 DDPSDA
70 NC
69 CWTACH
68 MTRCLK
67 EXT_ARSTZ
66 SSPO_CSO
65 SSPO_DO
64 SSPO_CLK
63 GND
62 ACTDATA
61 VSYNC
60 HSYNC
59 GND
58 CLKIN
57 GND
56 B+12VMTR
55 B+12VMTR
54 B+12VMTR
53 GND
52 B+3.3V
51 B+3.3V
50 GND
49 B+5V1
48 GND
47 GND
46 B+2.5V
45 B+2.5V
44 B+2.5V
43 B+2.5V
42 B+2.5V
41 B+2.5V
40 GND
39 DDP_LIGHT
38 LAMPEN
37 RESETZ
36 PWRGOOD
HOST-IRQ 3
CWTACH 3
MTRCLK 3
EXT_ARSTZ 3,4
SSPO_CSO 3
SSPO_DO 3
SSPO_CLK 3
ACTDATA 2
VSYNCZ 2
HSYNCZ 2
CLKIN 2
B+12VMTR
B+5V1
B+2V5
R9137 100 0603
R9139 100 0603
R9138 100 0603
R9140 100 0603
B+3V3
R9116
0
0603
TH9003
NC(THERMISTOR)
t°
1
2
TH9002
NC
0603
R9131
180K
0603
C9014
0.1U/50V
0603
R9133
NC
0603
R9132
4.7K
0603
S9101
FHDS-02
DDP_SDA
DDP_SCL
1
2
4
3
R9134 100 0603
R9136 100 0603
CN1000
1
2
3
4
5
85204-0500
VDD
SDA
SCL
IIC FOR
COMPOSER
R9101 0 0603
R9102 0 0603
R9108 NC
R9107 NC
SDA0 3
SCL0 3
SDA1 3
SCL1 3
5VD
3V3D
CN9003
1
2
3
4
85204-0400
R9135
10K
0603
FB9006
MLB-321611-0080P
1206
CWI



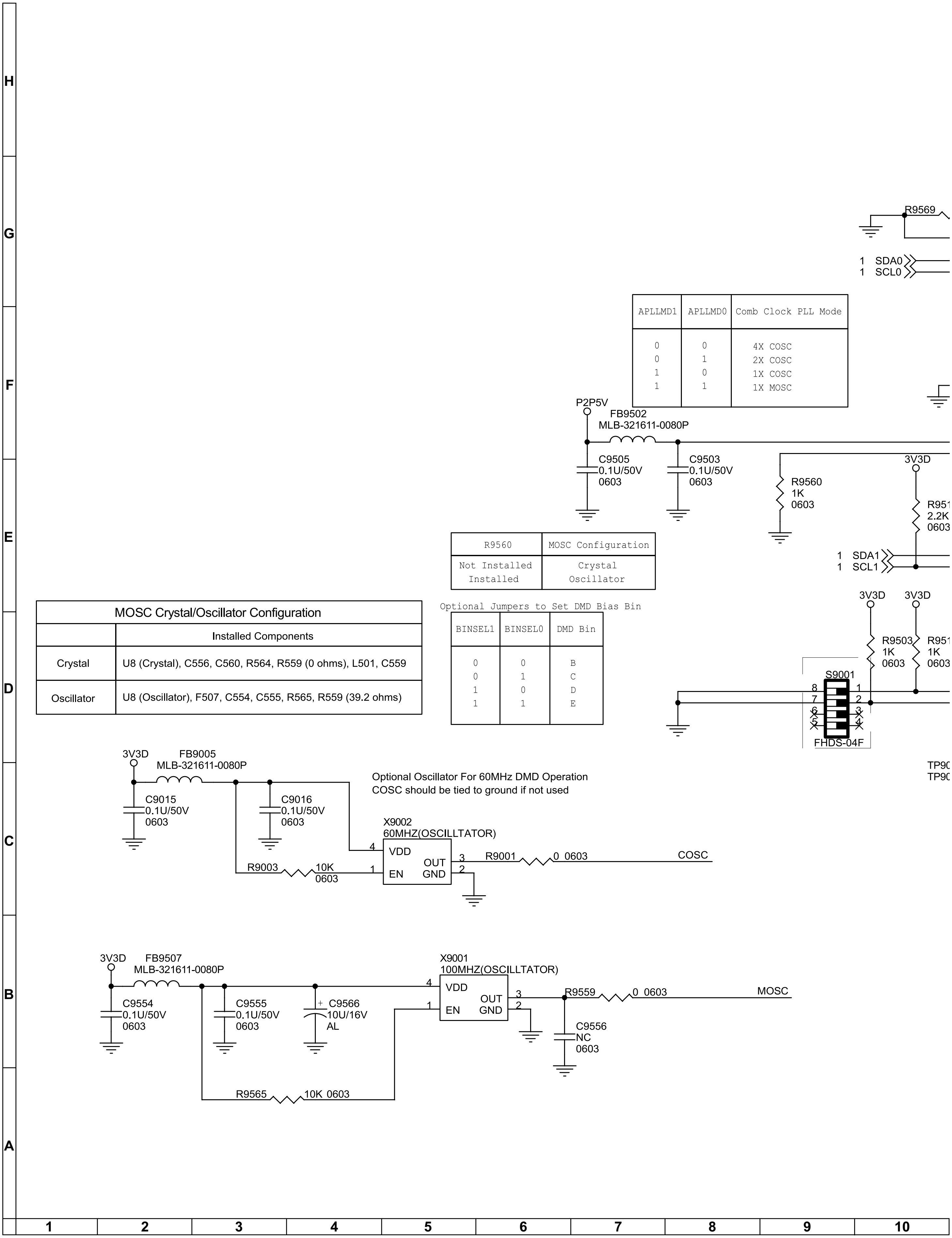
HOST-IRQ 3
CWTACH 3
MTRCLK 3
EXT_ARSTZ 3,4
SSPO_CSO 3
SSPO_DO 3
SSPO_CLK 3
ACTDATA 2
VSYNCZ 2
HSYNCZ 2
CLKIN 2
B+12VMTR
B+3V3
B+5V1
B+2V5
100 0603
LAMPLITZ 2
LAMPEN 2
RESETZ
POWERGOOD 2
C9501 NC 0603
R9319 10K 0603
SDA0 3
SCL0 3
SDA1 3
SCL1 3
611-0080P
CWINDEX 3
B+5V1
FB9000
MLB-321611-0080P 1206
VDD
5VD
B+3V3
FB9011
FB9001
3V3D
B+2V5
FB9010
FB9002
P2P5V
B+12VMTR
FB9012
P12V
B+5V1
RESETZ
R1000 NC 0603
R1002 NC 0603
R9106 1K 0603
D1000 NC(LM4040-5.0)
Q1001 NC(2N3904)
Q1000 NC(2N3904)
R1003 NC
C9502 NC 0603
R9507 10K 0603
RESETDMD 2
1
2
3
10
11
12
13
14
15
16
17
18
19

# ■FORMATTER UNIT / FORMATIERERENHEIT-2/6


IC9003A
DDP1000
3V3D
R9574
2.2K
0603
R9575
2.2K
0603
1 VSYNCZ
1 HSYNCZ
1 CLKIN
1 ACTDATA
3 FSD16
1 LAMPLITZ
1 LAMPEN
1 POWERGOOD
1 RESETDMD
5 VREFASIC
P2P5V
C9536
0.1U/50V
0603
C9530
0.1U/50V
0603
TP9034
TP9033
R9501 1K 0603
R9505 NC 0603
R9571 NC 0603
R9572 NC 0603
R9573 NC 0603
P2P5V
3V3D
R9554 1K 0603
R9509 1K 0603
R9555
NC
R9578
NC
0603
R26 VSYNCZ
N25 NSYNCZ
N23 WCLK
M23 IVALID
M24 OLACT
E23 SYNCVAILD2/DI2
N26 CTRL
M26 FLDSYNC
P25 LAMPSTAT
P24 LAMPCTRL
E1 PWRGOOD
G3 SYSRSTZ
D11 RD_VREF1
D9 RD_VREF0
B10 RD_AVDD0
B12 RD_AVDD1
C1 TDO2
C23 TMS2
M4 TDO1
B24 TMS1
C22 TDI
D5 TRSTZ
C4 TCK
B3 ICEOENZ
A24 ICTSENZ
AF2 IBMT_RI
AD2 IBMT_LT
K25 POSTST
D19 LSSDEN
AB21 AB20 AB19 AB8 AB7 AB6 AA22 AA5 Y22 Y5 W22 W5 H22 H5 G22 G5 F22 F5 3V3D
T1 P22 P5 N22 N5 L26 L1 J22 J5 F26 F1 E22 E18 E14 E13 E9 E5 D23 D18 D16 D14 D12 D10 D6 D4 C24 C18 C17 C14 C11 C8 GND
RQ7 D13 RQ7
RQ6 C12 RQ6
RQ5 A12 RQ5
RQ4 A13 RQ4
RQ3 C13 RQ3
RQ2 A14 RQ2
RQ1 C15 RQ1
RQ0 D15 RQ0
RQ[7..0]
RQ[7..0] 5
DQA8 A3 DQA8
DQA7 B4 DQA7
DQA6 A4 DQA6
DQA5 B6 DQA5
DQA4 D7 DQA4
DQA3 A5 DQA3
DQA2 C7 DQA2
DQA1 D8 DQA1
DQA0 A7 DQA0
DQA[8..0]
DQA[8..0] 5
DQB8 A20 DQB8
DQB7 C19 DQB7
DQB6 B18 DQB6
DQB5 A19 DQB5
DQB4 D17 DQB4
DQB3 A18 DQB3
DQB2 B16 DQB2
DQB1 A17 DQB1
DQB0 C16 DQB0
DQB[8..0]
DQB[8..0] 5
RD_SCK A22 SCK 5
RD_CMD B20 CMD 5
RD_SIO C20 SIO 5
RD_CFM A8 CFM 5
RD_CFMN C9 CFMN 5
RD_CTM C10 CTM 5
RD_CTMN A9 CTMN 5
PCLKM C21 R9506 22F 060
SCLKN B21 R9510 22F 060
REFCLK D20 R9518 22F 060
AF26 AF25 AF21 AF16 AF15 AF11 AF6 AF1 AE25 AE2 AE1 AD24 AD3 AC23 AC4 AB22 AB18 AB14 AB13 AB9 AB5 AA26 AA1 V22 V5 T26 T2 B26 B25 B19 B17 B14 B13 B11 B9 B8 B7 B5 B2 A26 A21 A16 A11 A6 A2 A1 C6 C5 C3 GND
Rambus,JTAG,Customer Input
H G F E D C B A
1 2 3 4 5 6 7 8 9 10


FLDATA[15..0]
FLDATA[15..0]
RQ[7..0] 5
DQA[8..0] 5
DQB[8..0] 5
P2P5V
IC9003B
DDP1000
E21 E20 E19 E17 E16 E15 E12 E11 E10
P2P5V
FLDATA0 AF23
FLDATA1 AE22
FLDATA2 AC21
FLDATA3 AF23
FLDATA4 AE21
FLDATA5 AD21
FLDATA6 AC20
FLDATA7 AF22
FLDATA8 AE20
FLDATA9 AD20
FLDATA10 AF20
FLDATA11 AD19
FLDATA12 AC18
FLDATA13 AE18
FLDATA14 AF19
FLDATA15 AD18
L11 L12 L13 L14 L15 L16 A10 A15
GND
Flash Interface
P2P5V E8
P2P5V E7
P2P5V E6
P2P5V B15
FLADDR19 AD12
TP9053
FLADDR18 AE13
FLADDR17 AF12
FLADDR16 AF13
FLADDR15 AD14
FLADDR14 AD13
FLADDR13 AF14
FLADDR12 AE14
FLADDR11 AC15
FLADDR10 AD15
FLADDR9 AC14
FLADDR8 AE15
FLADDR7 AD16
FLADDR6 AC16
FLADDR5 AF17
FLADDR4 AE16
FLADDR3 AD17
FLADDR2 AF18
FLADDR1 AC17
FLADDR0 AE17
FL_OE AD23
FL_WE AD22
FL_CS AF24
IC9004
AM29LV800BB-90
3V3D
16 A18
17 A17
48 A16
1 A15
2 A14
3 A13
4 A12
5 A11
6 A10
7 A9
8 A8
18 A7
19 A6
20 A5
21 A4
22 A3
23 A2
24 A1
25 A0
3V3D 47 BYTE
28 OE
11 WE
26 CE
12 RESET
VCC 37
VCC 13
WP 14
D15 45 FLDATA15
D14 43 FLDATA14
D13 41 FLDATA13
D12 39 FLDATA12
D11 36 FLDATA11
D10 34 FLDATA10
D9 32 FLDATA9
D8 30 FLDATA8
D7 44 FLDATA7
D6 42 FLDATA6
D5 40 FLDATA5
D4 38 FLDATA4
D3 35 FLDATA3
D2 33 FLDATA2
D1 31 FLDATA1
D0 29 FLDATA0
BUSY 15 FLASH-BUSYZ 3
VSS 46
VSS 27
22F 0603 PCLKM 5
22F 0603 SCLKN 5
22F 0603 REFCLK 5
P12V R9516 NC
PUM-ARSTZ 3
3V3D C9543 0.1U/50V 0603
3V3D C9511 0.1U/50V 0603
C9513 0.1U/50V 0603
C9514 0.1U/50V 0603
3V3D C9548 0.1U/50V 0603
C9544 0.1U/50V 0603
C9551 0.1U/50V 0603
3V3D C9067 10U/25V AL
C9523 10U/16V AL
P2P5V C9558 220U/6.3V AL
P2P5V C9535 0.1U/50V 0603
C9531 0.1U/50V 0603
C9529 0.1U/50V 0603
C9525 0.1U/50V 0603
P2P5V C9522 0.1U/50V 0603
C9520 0.1U/50V 0603
C9515 0.1U/50V 0603
C9516 0.1U/50V 0603
P2P5V C9517 0.1U/50V 0603
C9510 0.1U/50V 0603
C9542 0.1U/50V 0603
C9519 0.1U/50V 0603
P2P5V C9521 0.1U/50V 0603
C9524 0.1U/50V 0603
C9547 0.1U/50V 0603
C9528 0.1U/50V 0603
P2P5V C9545 0.1U/50V 0603
C9546 0.1U/50V 0603
C9549 0.1U/50V 0603
C9550 0.1U/50V 0603
10 11 12 13 14 15 16 17 18 19

# ■FORMATTER UNIT / FORMATIERUNGSEINHEIT-3/6


R9569
1 SDA0
1 SCL0
P2P5V
FB9502
MLB-321611-0080P
C9505
0.1U/50V
0603
C9503
0.1U/50V
0603
R9560
1K
0603
3V3D
2.2K
0603
1 SDA1
1 SCL1
3V3D
3V3D
R9503
1K
0603
1K
0603
S9001
8 7 6 5
1 2 3 4
FHDS-04F
3V3D
FB9005
MLB-321611-0080P
C9015
0.1U/50V
0603
C9016
0.1U/50V
0603
Optional Oscillator For 60MHz DMD Operation
COSC should be tied to ground if not used
X9002
60MHZ(OSCILLTATOR)
VDD
OUT
EN
GND
R9003
10K
0603
R9001
0 0603
COSC
3V3D
FB9507
MLB-321611-0080P
C9554
0.1U/50V
0603
C9555
0.1U/50V
0603
C9566
10U/16V
AL
X9001
100MHZ(OSCILLTATOR)
VDD
OUT
EN
GND
R9559
0 0603
MOSC
C9556
NC
0603
R9565
10K 0603
H G F E D C B A
1 2 3 4 5 6 7 8 9 10

| APLLMD1 | APLLMD0 | Comb Clock PLL Mode |
|---|---|---|
| 0 | 0 | 4X COSC |
| 0 | 1 | 2X COSC |
| 1 | 0 | 1X COSC |
| 1 | 1 | 1X MOSC |

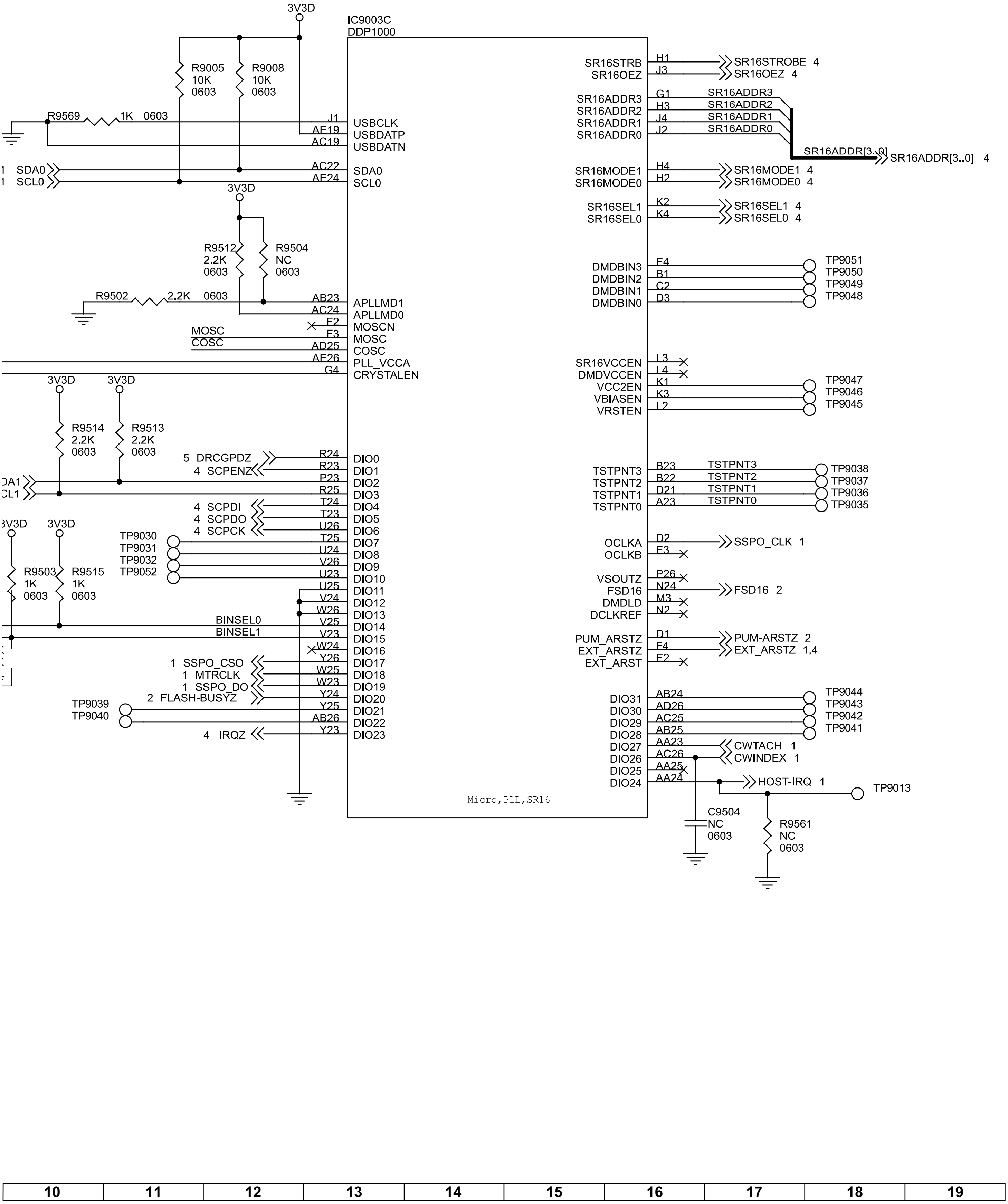
| R9560 | MOSC Configuration |
|---|---|
| Not Installed | Crystal |
| Installed | Oscillator |

Optional Jumpers to Set DMD Bias Bin

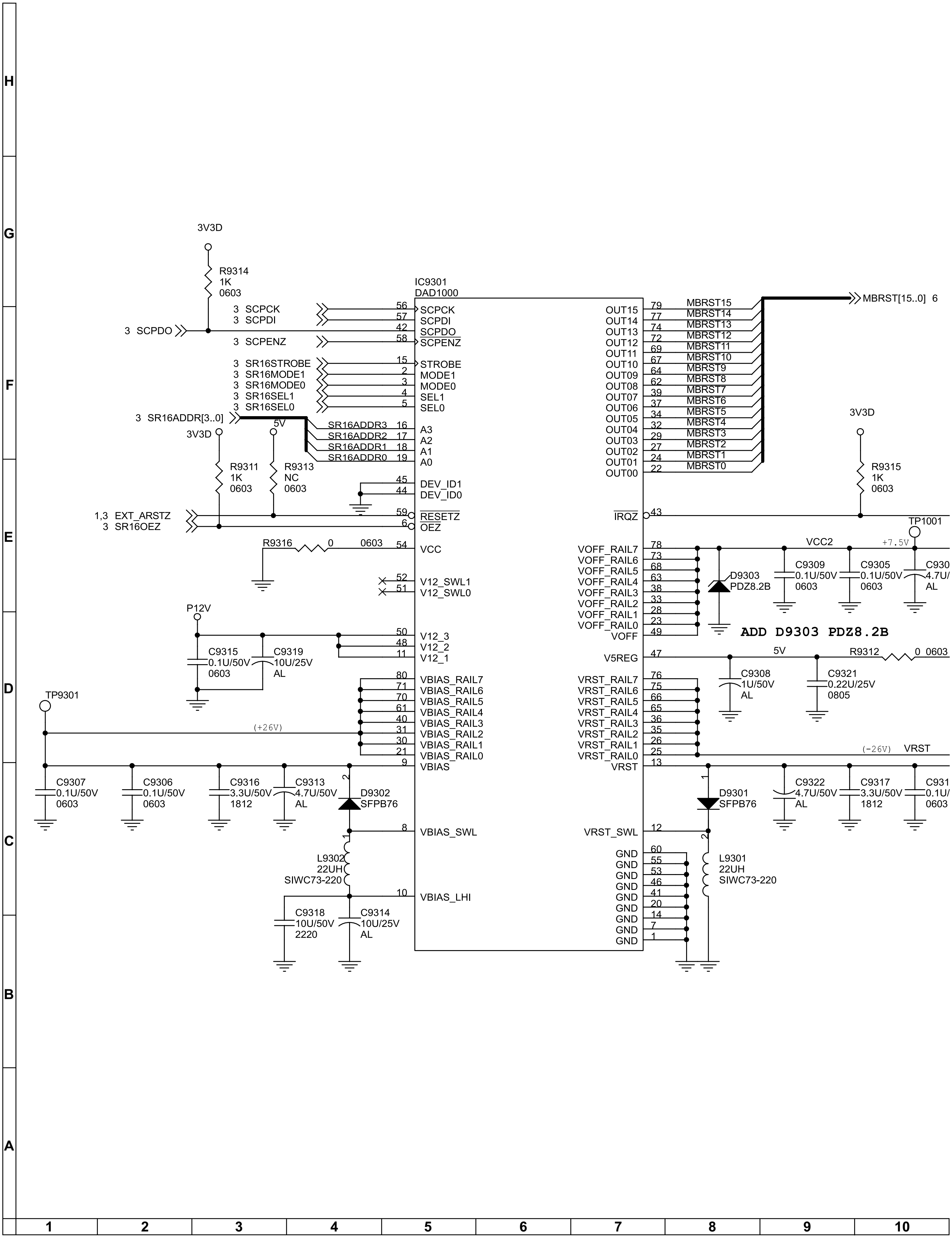
| BINSEL1 | BINSEL0 | DMD Bin |
|---|---|---|
| 0 | 0 | B |
| 0 | 1 | C |
| 1 | 0 | D |
| 1 | 1 | E |

MOSC Crystal/Oscillator Configuration

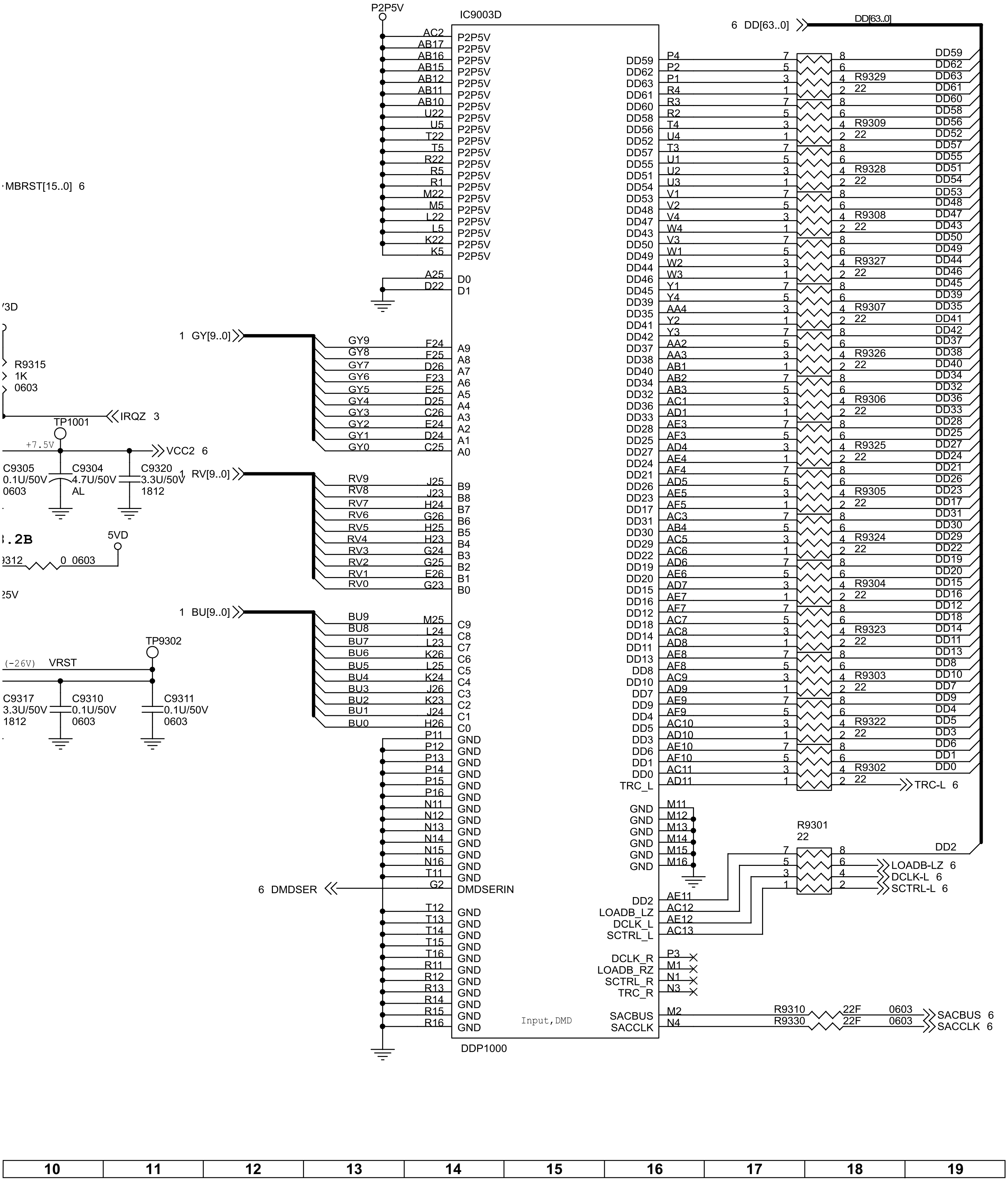
| | Installed Components |
|---|---|
| Crystal | U8 (Crystal), C556, C560, R564, R559 (0 ohms), L501, C559 |
| Oscillator | U8 (Oscillator), F507, C554, C555, R565, R559 (39.2 ohms) |


3V3D
IC9003C
DDP1000
R9005
10K
0603
R9008
10K
0603
R9569
1K 0603
J1 USBCLK
AE19 USBDATP
AC19 USBDATN
SDA0
SCL0
AC22 SDA0
AE24 SCL0
R9512
2.2K
0603
R9504
NC
0603
R9502
2.2K 0603
AB23 APLLMD1
AC24 APLLMD0
F2 MOSCN
MOSC
COSC
F3 MOSC
AD25 COSC
AE26 PLL_VCCA
G4 CRYSTALEN
R9514
2.2K
0603
R9513
2.2K
0603
5 DRCGPDZ
4 SCPENZ
DA1
CL1
R24 DIO0
R23 DIO1
P23 DIO2
R25 DIO3
4 SCPDI
4 SCPDO
4 SCPCK
T24 DIO4
T23 DIO5
U26 DIO6
TP9030
TP9031
TP9032
TP9052
T25 DIO7
U24 DIO8
V26 DIO9
U23 DIO10
U25 DIO11
V24 DIO12
W26 DIO13
V25 DIO14
V23 DIO15
W24 DIO16
Y26 DIO17
W25 DIO18
W23 DIO19
Y24 DIO20
Y25 DIO21
AB26 DIO22
Y23 DIO23
R9503
1K
0603
R9515
1K
0603
BINSEL0
BINSEL1
1 SSPO_CSO
1 MTRCLK
1 SSPO_DO
2 FLASH-BUSYZ
TP9039
TP9040
4 IRQZ
SR16STRB H1 SR16STROBE 4
SR16OEZ J3 SR16OEZ 4
SR16ADDR3 G1 SR16ADDR3
SR16ADDR2 H3 SR16ADDR2
SR16ADDR1 J4 SR16ADDR1
SR16ADDR0 J2 SR16ADDR0
SR16ADDR[3..0]
SR16ADDR[3..0] 4
SR16MODE1 H4 SR16MODE1 4
SR16MODE0 H2 SR16MODE0 4
SR16SEL1 K2 SR16SEL1 4
SR16SEL0 K4 SR16SEL0 4
DMDBIN3 E4 TP9051
DMDBIN2 B1 TP9050
DMDBIN1 C2 TP9049
DMDBIN0 D3 TP9048
SR16VCCEN L3
DMDVCCEN L4
VCC2EN K1 TP9047
VBIASEN K3 TP9046
VRSTEN L2 TP9045
TSTPNT3 B23 TSTPNT3 TP9038
TSTPNT2 B22 TSTPNT2 TP9037
TSTPNT1 D21 TSTPNT1 TP9036
TSTPNT0 A23 TSTPNT0 TP9035
OCLKA D2 SSPO_CLK 1
OCLKB E3
VSOUTZ P26
FSD16 N24 FSD16 2
DMDLD M3
DCLKREF N2
PUM_ARSTZ D1 PUM-ARSTZ 2
EXT_ARSTZ F4 EXT_ARSTZ 1,4
EXT_ARST E2
DIO31 AB24 TP9044
DIO30 AD26 TP9043
DIO29 AC25 TP9042
DIO28 AB25 TP9041
DIO27 AA23 CWTACH 1
DIO26 AC26 CWINDEX 1
DIO25 AA25
DIO24 AA24 HOST-IRQ 1
TP9013
Micro,PLL,SR16
C9504
NC
0603
R9561
NC
0603
10
11
12
13
14
15
16
17
18
19

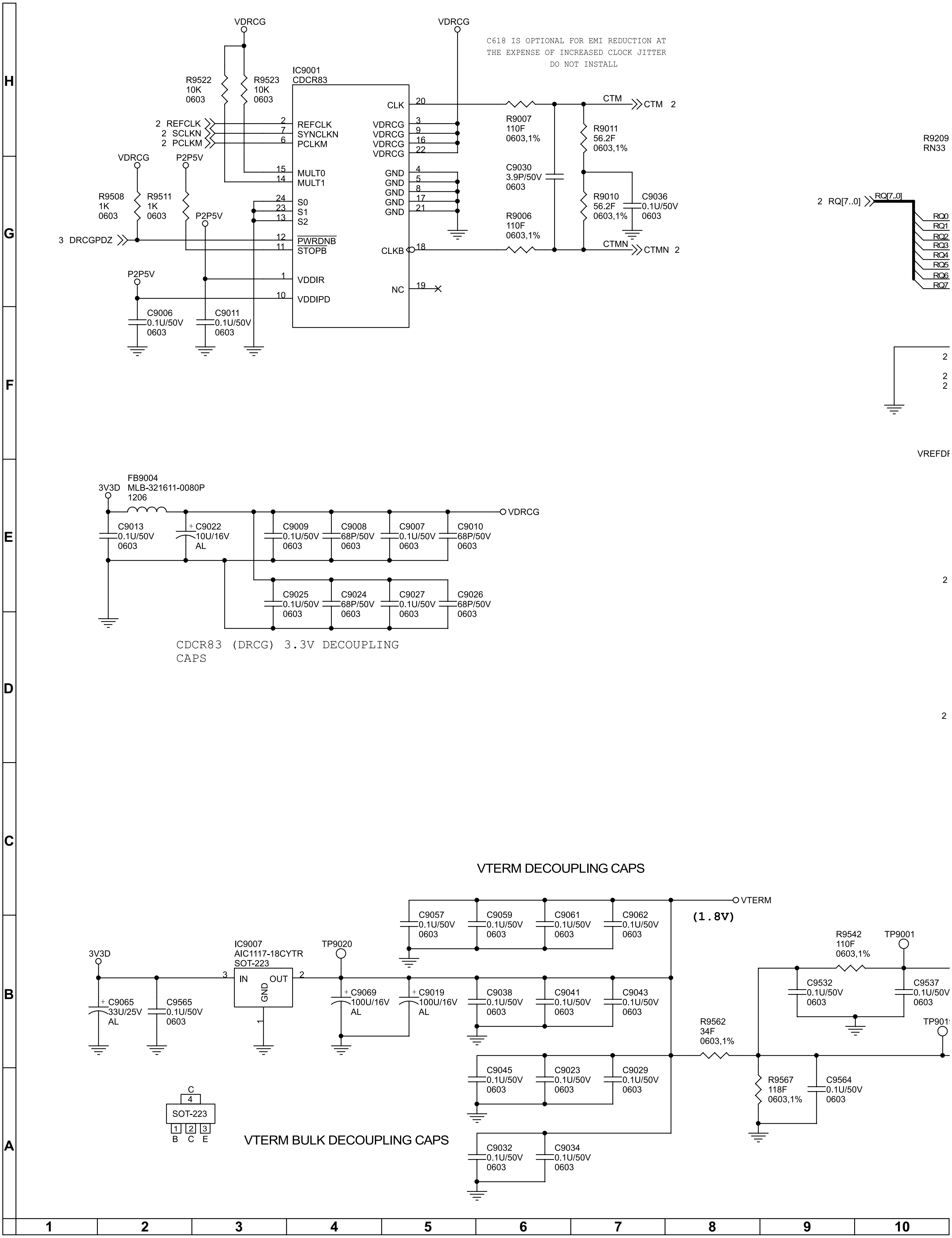
# ■FORMATTER UNIT / FORMATIEREREINHEIT-4/6



H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
3V3D
R9314
1K
0603
IC9301
DAD1000
3 SCPCK
3 SCPDI
3 SCPDO
3 SCPENZ
3 SR16STROBE
3 SR16MODE1
3 SR16MODE0
3 SR16SEL1
3 SR16SEL0
3 SR16ADDR[3..0]
5V
3V3D
SR16ADDR3
SR16ADDR2
SR16ADDR1
SR16ADDR0
R9311
1K
0603
R9313
NC
0603
1,3 EXT_ARSTZ
3 SR16OEZ
R9316
0
0603
P12V
C9315
0.1U/50V
0603
C9319
10U/25V
AL
TP9301
(+26V)
C9307
0.1U/50V
0603
C9306
0.1U/50V
0603
C9316
3.3U/50V
1812
C9313
4.7U/50V
AL
D9302
SFPB76
L9302
22UH
SIWC73-220
C9318
10U/50V
2220
C9314
10U/25V
AL
56 SCPCK
57 SCPDI
42 SCPDO
58 SCPENZ
15 STROBE
2 MODE1
3 MODE0
4 SEL1
5 SEL0
16 A3
17 A2
18 A1
19 A0
45 DEV_ID1
44 DEV_ID0
59 RESETZ
6 OEZ
54 VCC
52 V12_SWL1
51 V12_SWL0
50 V12_3
48 V12_2
11 V12_1
80 VBIAS_RAIL7
71 VBIAS_RAIL6
70 VBIAS_RAIL5
61 VBIAS_RAIL4
40 VBIAS_RAIL3
31 VBIAS_RAIL2
30 VBIAS_RAIL1
21 VBIAS_RAIL0
9 VBIAS
8 VBIAS_SWL
10 VBIAS_LHI
OUT15 79
OUT14 77
OUT13 74
OUT12 72
OUT11 69
OUT10 67
OUT09 64
OUT08 62
OUT07 39
OUT06 37
OUT05 34
OUT04 32
OUT03 29
OUT02 27
OUT01 24
OUT00 22
MBRST15
MBRST14
MBRST13
MBRST12
MBRST11
MBRST10
MBRST9
MBRST8
MBRST7
MBRST6
MBRST5
MBRST4
MBRST3
MBRST2
MBRST1
MBRST0
MBRST[15..0] 6
3V3D
R9315
1K
0603
IRQZ 43
TP1001
VCC2
+7.5V
VOFF_RAIL7 78
VOFF_RAIL6 73
VOFF_RAIL5 68
VOFF_RAIL4 63
VOFF_RAIL3 38
VOFF_RAIL2 33
VOFF_RAIL1 28
VOFF_RAIL0 23
VOFF 49
D9303
PDZ8.2B
C9309
0.1U/50V
0603
C9305
0.1U/50V
0603
C930
4.7U/
AL
ADD D9303 PDZ8.2B
V5REG 47
5V
R9312
0 0603
C9308
1U/50V
AL
C9321
0.22U/25V
0805
VRST_RAIL7 76
VRST_RAIL6 75
VRST_RAIL5 66
VRST_RAIL4 65
VRST_RAIL3 36
VRST_RAIL2 35
VRST_RAIL1 26
VRST_RAIL0 25
VRST 13
(-26V) VRST
D9301
SFPB76
C9322
4.7U/50V
AL
C9317
3.3U/50V
1812
C931
0.1U/
0603
VRST_SWL 12
L9301
22UH
SIWC73-220
GND 60
GND 55
GND 53
GND 46
GND 41
GND 20
GND 14
GND 7
GND 1


P2P5V
IC9003D
AC2 P2P5V
AB17 P2P5V
AB16 P2P5V
AB15 P2P5V
AB12 P2P5V
AB11 P2P5V
AB10 P2P5V
U22 P2P5V
U5 P2P5V
T22 P2P5V
T5 P2P5V
R22 P2P5V
R5 P2P5V
R1 P2P5V
M22 P2P5V
M5 P2P5V
L22 P2P5V
L5 P2P5V
K22 P2P5V
K5 P2P5V
A25 D0
D22 D1
MBRST[15..0] 6
3D
R9315
1K
0603
IRQZ 3
TP1001
+7.5V
VCC2 6
C9305
0.1U/50V
0603
C9304
4.7U/50V
AL
C9320
3.3U/50V
1812
.2B
5VD
312 0 0603
25V
TP9302
(-26V) VRST
C9317
3.3U/50V
1812
C9310
0.1U/50V
0603
C9311
0.1U/50V
0603
1 GY[9..0]
GY9 F24 A9
GY8 F25 A8
GY7 D26 A7
GY6 F23 A6
GY5 E25 A5
GY4 D25 A4
GY3 C26 A3
GY2 E24 A2
GY1 D24 A1
GY0 C25 A0
1 RV[9..0]
RV9 J25 B9
RV8 J23 B8
RV7 H24 B7
RV6 G26 B6
RV5 H25 B5
RV4 H23 B4
RV3 G24 B3
RV2 G25 B2
RV1 E26 B1
RV0 G23 B0
1 BU[9..0]
BU9 M25 C9
BU8 L24 C8
BU7 L23 C7
BU6 K26 C6
BU5 L25 C5
BU4 K24 C4
BU3 J26 C3
BU2 K23 C2
BU1 J24 C1
BU0 H26 C0
P11 GND
P12 GND
P13 GND
P14 GND
P15 GND
P16 GND
N11 GND
N12 GND
N13 GND
N14 GND
N15 GND
N16 GND
T11 GND
6 DMDSER
G2 DMDSERIN
T12 GND
T13 GND
T14 GND
T15 GND
T16 GND
R11 GND
R12 GND
R13 GND
R14 GND
R15 GND
R16 GND
Input,DMD
DDP1000
6 DD[63..0]
DD[63..0]
DD59 P4 7 8 DD59
DD62 P2 5 6 DD62
DD63 P1 3 4 R9329 DD63
DD61 R4 1 2 22 DD61
DD60 R3 7 8 DD60
DD58 R2 5 6 DD58
DD56 T4 3 4 R9309 DD56
DD52 U4 1 2 22 DD52
DD57 T3 7 8 DD57
DD55 U1 5 6 DD55
DD51 U2 3 4 R9328 DD51
DD54 U3 1 2 22 DD54
DD53 V1 7 8 DD53
DD48 V2 5 6 DD48
DD47 V4 3 4 R9308 DD47
DD43 W4 1 2 22 DD43
DD50 V3 7 8 DD50
DD49 W1 5 6 DD49
DD44 W2 3 4 R9327 DD44
DD46 W3 1 2 22 DD46
DD45 Y1 7 8 DD45
DD39 Y4 5 6 DD39
DD35 AA4 3 4 R9307 DD35
DD41 Y2 1 2 22 DD41
DD42 Y3 7 8 DD42
DD37 AA2 5 6 DD37
DD38 AA3 3 4 R9326 DD38
DD40 AB1 1 2 22 DD40
DD34 AB2 7 8 DD34
DD32 AB3 5 6 DD32
DD36 AC1 3 4 R9306 DD36
DD33 AD1 1 2 22 DD33
DD28 AE3 7 8 DD28
DD25 AF3 5 6 DD25
DD27 AD4 3 4 R9325 DD27
DD24 AE4 1 2 22 DD24
DD21 AF4 7 8 DD21
DD26 AD5 5 6 DD26
DD23 AE5 3 4 R9305 DD23
DD17 AF5 1 2 22 DD17
DD31 AC3 7 8 DD31
DD30 AB4 5 6 DD30
DD29 AC5 3 4 R9324 DD29
DD22 AC6 1 2 22 DD22
DD19 AD6 7 8 DD19
DD20 AE6 5 6 DD20
DD15 AD7 3 4 R9304 DD15
DD16 AE7 1 2 22 DD16
DD12 AF7 7 8 DD12
DD18 AC7 5 6 DD18
DD14 AC8 3 4 R9323 DD14
DD11 AD8 1 2 22 DD11
DD13 AE8 7 8 DD13
DD8 AF8 5 6 DD8
DD10 AC9 3 4 R9303 DD10
DD7 AD9 1 2 22 DD7
DD9 AE9 7 8 DD9
DD4 AF9 5 6 DD4
DD5 AC10 3 4 R9322 DD5
DD3 AD10 1 2 22 DD3
DD6 AE10 7 8 DD6
DD1 AF10 5 6 DD1
DD0 AC11 3 4 R9302 DD0
TRC_L AD11 1 2 22 TRC-L 6
GND M11
GND M12
GND M13
GND M14
GND M15
GND M16
R9301
22
7 8 DD2
5 6 LOADB-LZ 6
3 4 DCLK-L 6
1 2 SCTRL-L 6
DD2 AE11
LOADB_LZ AC12
DCLK_L AE12
SCTRL_L AC13
DCLK_R P3
LOADB_RZ M1
SCTRL_R N1
TRC_R N3
SACBUS M2 R9310 22F 0603 SACBUS 6
SACCLK N4 R9330 22F 0603 SACCLK 6
10
11
12
13
14
15
16
17
18
19

# ■FORMATTER UNIT / FORMATIERERREINHEIT-5/6



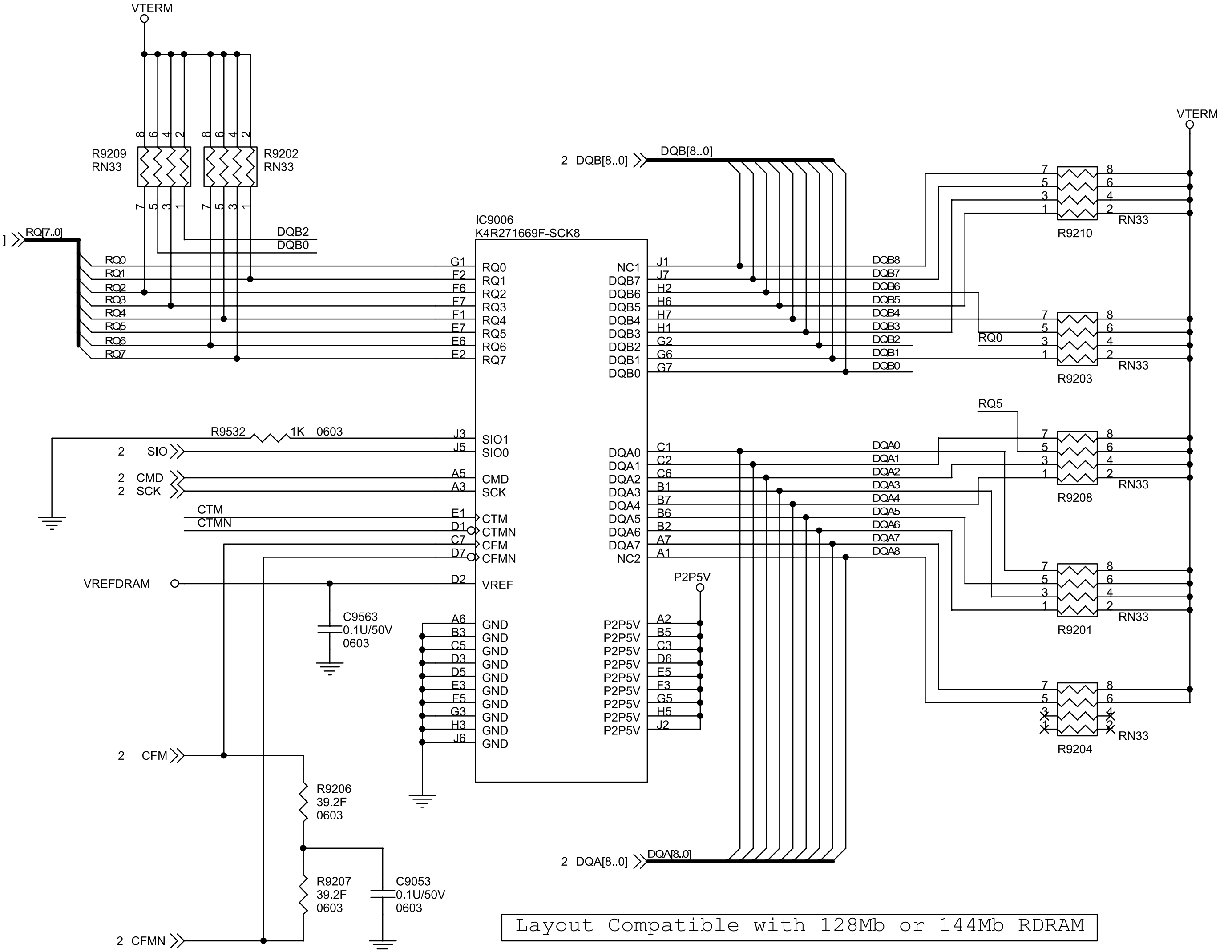
C618 IS OPTIONAL FOR EMI REDUCTION AT THE EXPENSE OF INCREASED CLOCK JITTER DO NOT INSTALL

CDCR83 (DRCG) 3.3V DECOUPLING CAPS

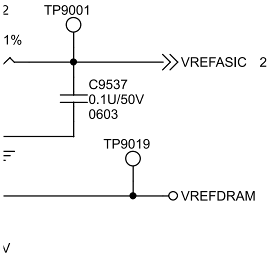
VTERM DECOUPLING CAPS

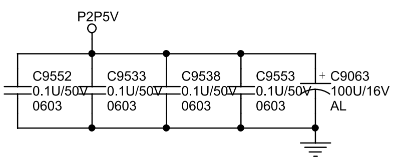
VTERM BULK DECOUPLING CAPS

H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
VDRCG
R9522 10K 0603
R9523 10K 0603
IC9001 CDCR83
2 REFCLK
2 SCLKN
2 PCLKM
REFCLK
SYNCLKN
PCLKM
MULT0
MULT1
S0
S1
S2
PWRDNB
STOPB
VDDIR
VDDIPD
CLK
VDRCG
GND
CLKB
NC
R9508 1K 0603
R9511 1K 0603
P2P5V
3 DRCGPDZ
C9006 0.1U/50V 0603
C9011 0.1U/50V 0603
R9007 110F 0603,1%
C9030 3.9P/50V 0603
R9006 110F 0603,1%
R9011 56.2F 0603,1%
R9010 56.2F 0603,1%
C9036 0.1U/50V 0603
CTM
CTM 2
CTMN
CTMN 2
R9209 RN33
2 RQ[7..0]
RQ[7..0]
RQ0
RQ1
RQ2
RQ3
RQ4
RQ5
RQ6
RQ7
VREFDF
3V3D
FB9004 MLB-321611-0080P 1206
C9013 0.1U/50V 0603
C9022 10U/16V AL
C9009 0.1U/50V 0603
C9008 68P/50V 0603
C9007 0.1U/50V 0603
C9010 68P/50V 0603
C9025 0.1U/50V 0603
C9024 68P/50V 0603
C9027 0.1U/50V 0603
C9026 68P/50V 0603
VTERM
(1.8V)
C9057 0.1U/50V 0603
C9059 0.1U/50V 0603
C9061 0.1U/50V 0603
C9062 0.1U/50V 0603
IC9007 AIC1117-18CYTR SOT-223
IN
OUT
GND
TP9020
C9065 33U/25V AL
C9565 0.1U/50V 0603
C9069 100U/16V AL
C9019 100U/16V AL
C9038 0.1U/50V 0603
C9041 0.1U/50V 0603
C9043 0.1U/50V 0603
C9045 0.1U/50V 0603
C9023 0.1U/50V 0603
C9029 0.1U/50V 0603
C9032 0.1U/50V 0603
C9034 0.1U/50V 0603
R9562 34F 0603,1%
R9542 110F 0603,1%
TP9001
C9532 0.1U/50V 0603
C9537 0.1U/50V 0603
TP901
R9567 118F 0603,1%
C9564 0.1U/50V 0603
SOT-223
B C E


VTERM
R9209
RN33
R9202
RN33
8 6 4 2
7 5 3 1
RQ[7..0]
RQ0
RQ1
RQ2
RQ3
RQ4
RQ5
RQ6
RQ7
DQB2
DQB0
IC9006
K4R271669F-SCK8
G1 RQ0
F2 RQ1
F6 RQ2
F7 RQ3
F1 RQ4
E7 RQ5
E6 RQ6
E2 RQ7
R9532 1K 0603
J3 SIO1
J5 SIO0
2 SIO
2 CMD
2 SCK
A5 CMD
A3 SCK
CTM
CTMN
E1 CTM
D1 CTMN
C7 CFM
D7 CFMN
VREFDRAM
D2 VREF
C9563
0.1U/50V
0603
A6 GND
B3 GND
C5 GND
D3 GND
D5 GND
E3 GND
F5 GND
G3 GND
H3 GND
J6 GND
2 CFM
R9206
39.2F
0603
R9207
39.2F
0603
C9053
0.1U/50V
0603
2 CFMN
2 DQB[8..0]
DQB[8..0]
NC1 J1
DQB7 J7
DQB6 H2
DQB5 H6
DQB4 H7
DQB3 H1
DQB2 G2
DQB1 G6
DQB0 G7
DQB8
DQB7
DQB6
DQB5
DQB4
DQB3
DQB2
DQB1
DQB0
DQA0 C1
DQA1 C2
DQA2 C6
DQA3 B1
DQA4 B7
DQA5 B6
DQA6 B2
DQA7 A7
NC2 A1
DQA0
DQA1
DQA2
DQA3
DQA4
DQA5
DQA6
DQA7
DQA8
P2P5V
P2P5V A2
P2P5V B5
P2P5V C3
P2P5V D6
P2P5V E5
P2P5V F3
P2P5V G5
P2P5V H5
P2P5V J2
2 DQA[8..0]
DQA[8..0]
VTERM
7 5 3 1
8 6 4 2
R9210
RN33
RQ0
R9203
RN33
RQ5
R9208
RN33
R9201
RN33
R9204
RN33

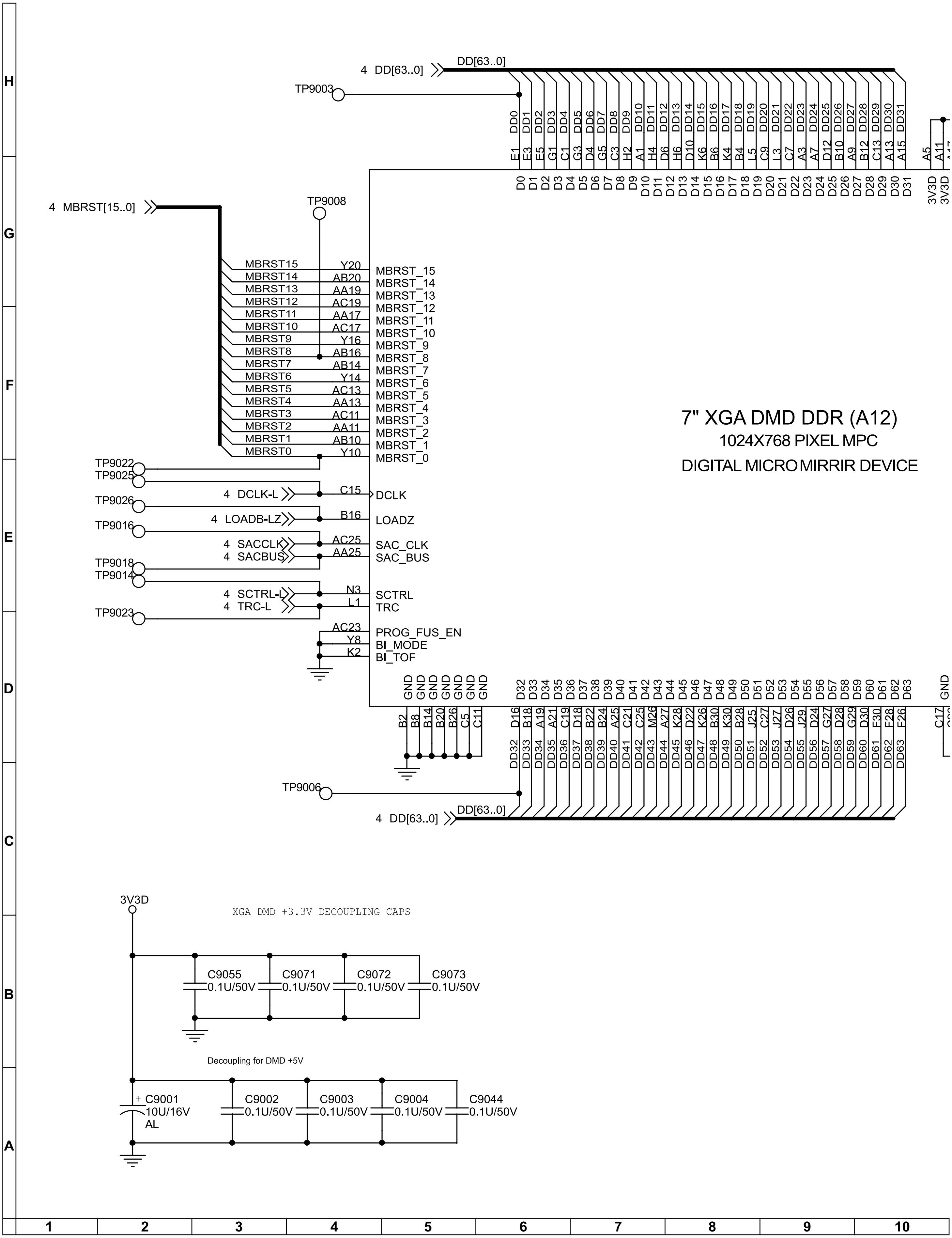
Layout Compatible with 128Mb or 144Mb RDRAM


2
TP9001
1%
VREFASIC 2
C9537
0.1U/50V
0603
TP9019
VREFDRAM
V

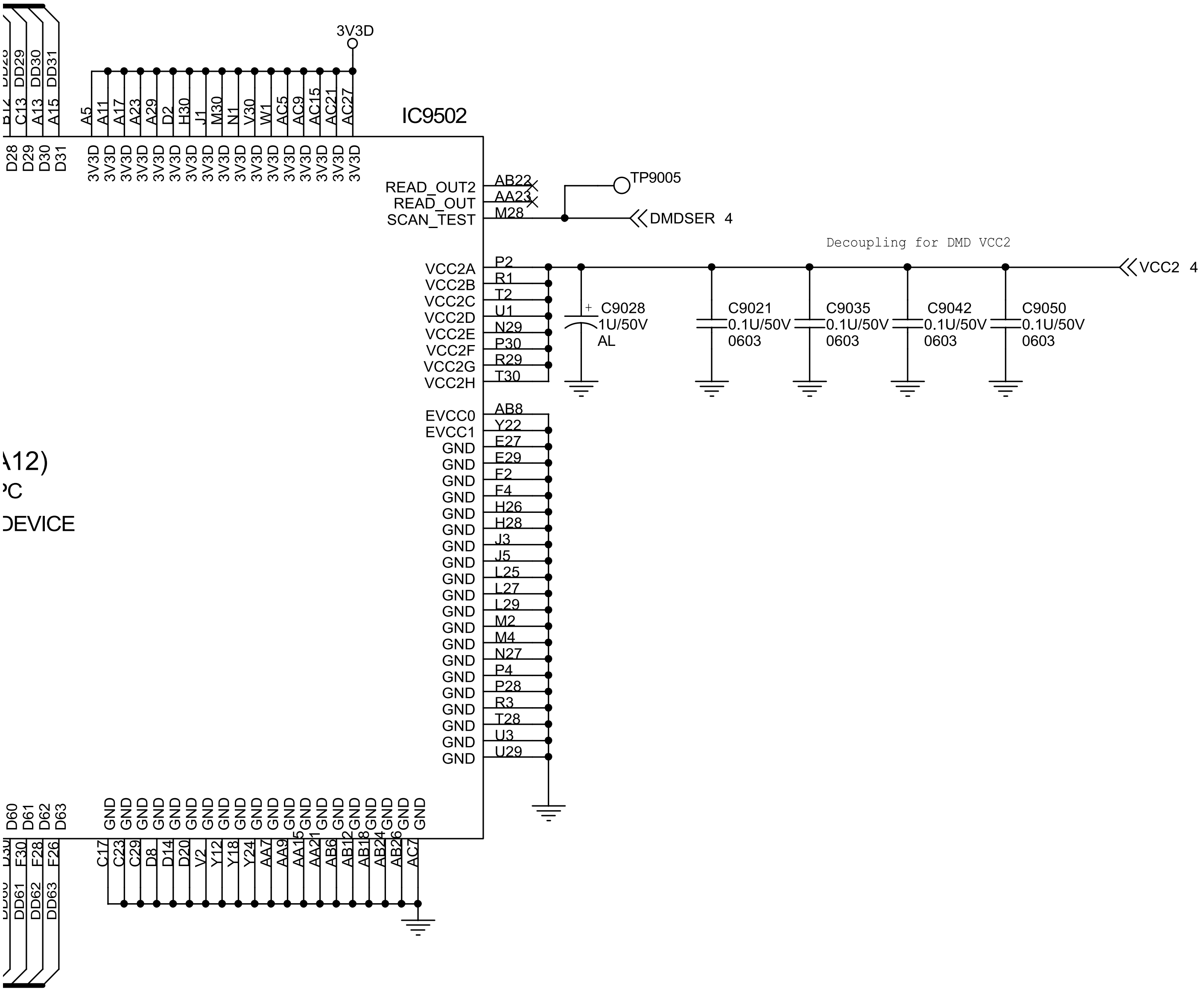

P2P5V
C9552
0.1U/50V
0603
C9533
0.1U/50V
0603
C9538
0.1U/50V
0603
C9553
0.1U/50V
0603
+
C9063
100U/16V
AL

RDRAM VDD DECOUPLING CAPS

# ■FORMATTER UNIT / FORMATIERETREINHEIT-6/6

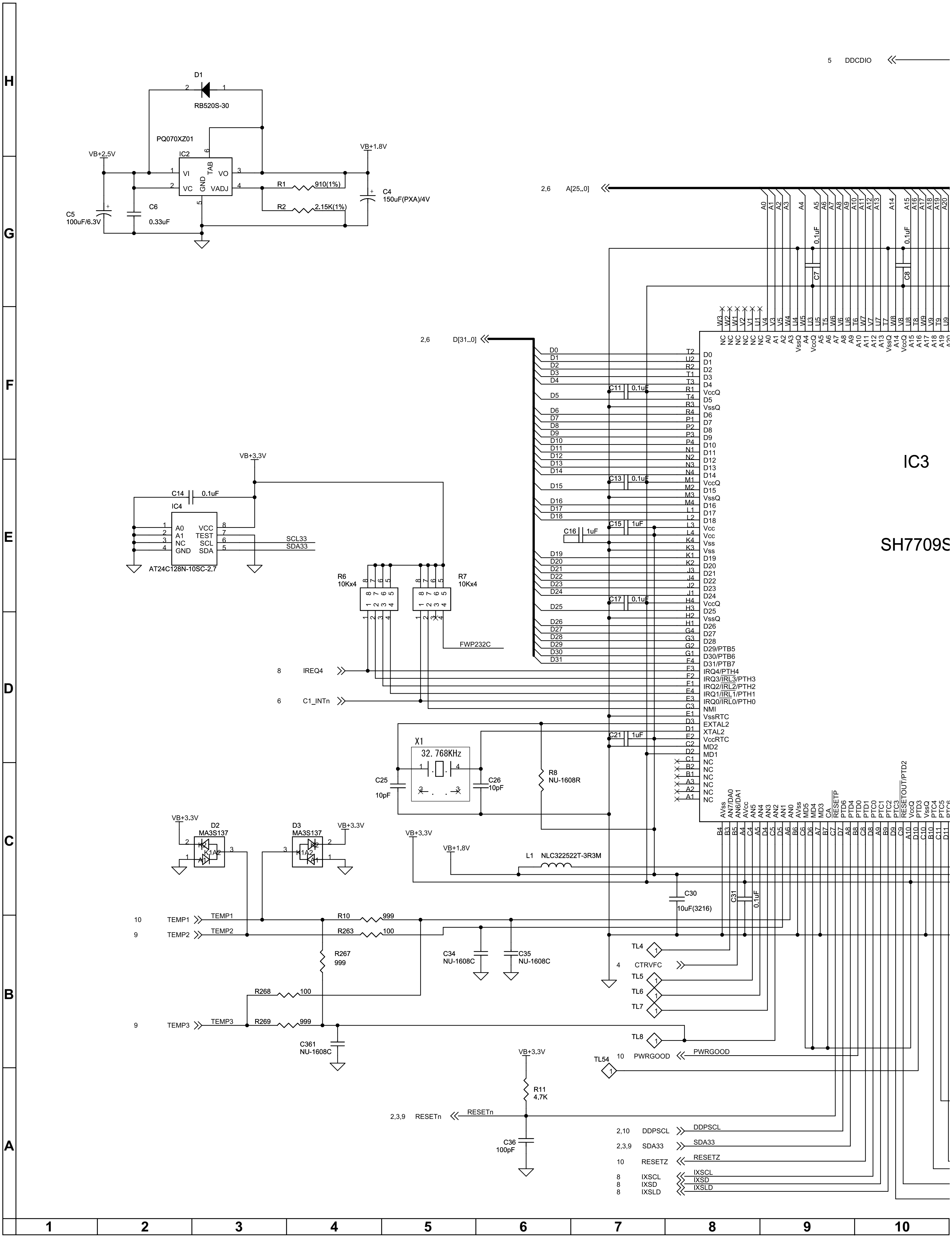


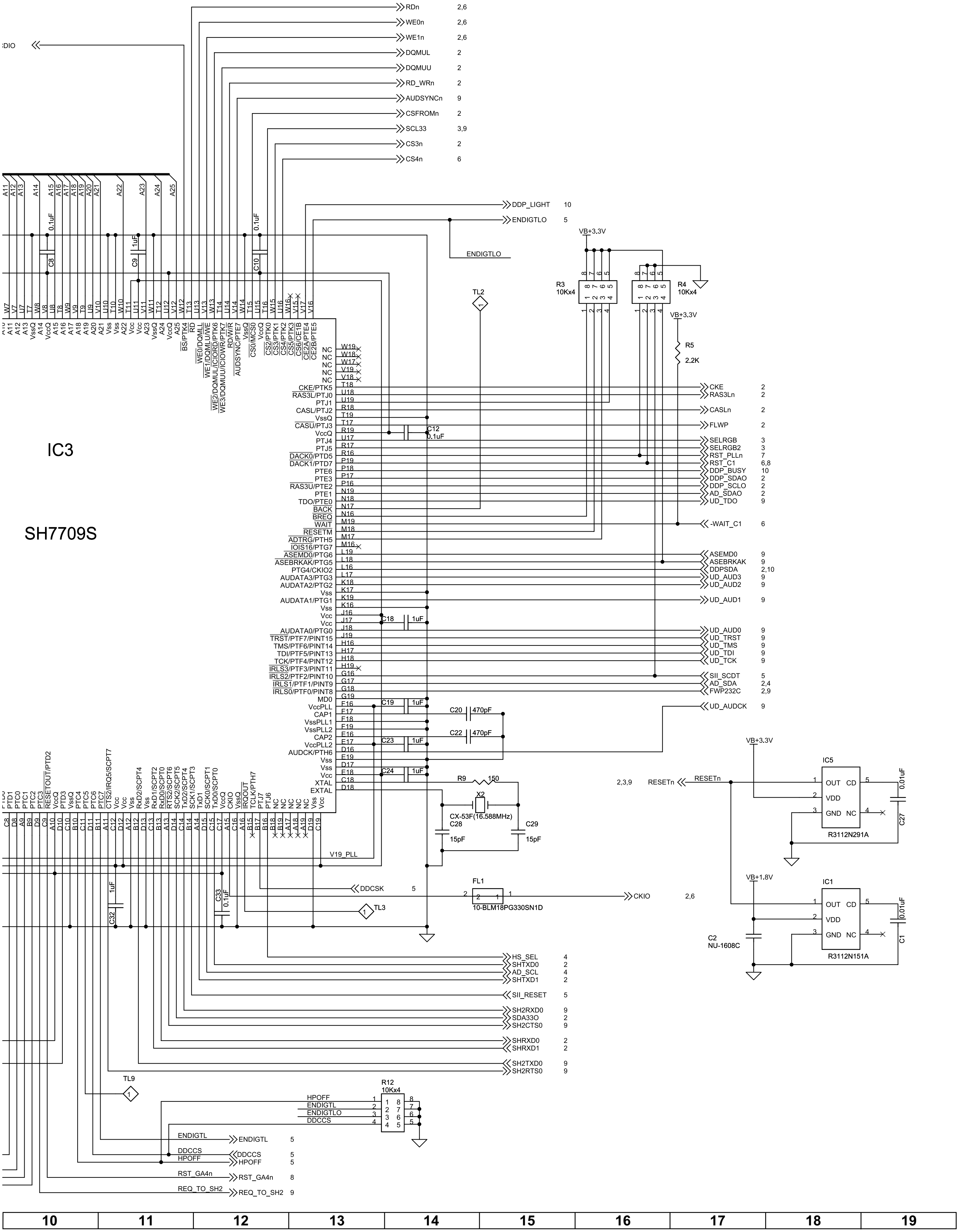
4 DD[63..0]
DD[63..0]
TP9003
DD0 DD1 DD2 DD3 DD4 DD5 DD6 DD7 DD8 DD9 DD10 DD11 DD12 DD13 DD14 DD15 DD16 DD17 DD18 DD19 DD20 DD21 DD22 DD23 DD24 DD25 DD26 DD27 DD28 DD29 DD30 DD31
E1 E3 E5 G1 C1 G3 D4 G5 C3 H2 A1 H4 D6 H6 D10 K6 B6 K4 B4 L5 C9 L3 C7 A3 A7 D12 B10 A9 B12 C13 A13 A15
D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15 D16 D17 D18 D19 D20 D21 D22 D23 D24 D25 D26 D27 D28 D29 D30 D31
A5 A11
3V3D 3V3D
4 MBRST[15..0]
TP9008
MBRST15 Y20 MBRST_15
MBRST14 AB20 MBRST_14
MBRST13 AA19 MBRST_13
MBRST12 AC19 MBRST_12
MBRST11 AA17 MBRST_11
MBRST10 AC17 MBRST_10
MBRST9 Y16 MBRST_9
MBRST8 AB16 MBRST_8
MBRST7 AB14 MBRST_7
MBRST6 Y14 MBRST_6
MBRST5 AC13 MBRST_5
MBRST4 AA13 MBRST_4
MBRST3 AC11 MBRST_3
MBRST2 AA11 MBRST_2
MBRST1 AB10 MBRST_1
MBRST0 Y10 MBRST_0
7" XGA DMD DDR (A12)
1024X768 PIXEL MPC
DIGITAL MICROMIRRIR DEVICE
TP9022
TP9025
4 DCLK-L C15 DCLK
TP9026
4 LOADB-LZ B16 LOADZ
TP9016
4 SACCLK AC25 SAC_CLK
4 SACBUS AA25 SAC_BUS
TP9018
TP9014
4 SCTRL-L N3 SCTRL
4 TRC-L L1 TRC
TP9023
AC23 PROG_FUS_EN
Y8 BI_MODE
K2 BI_TOF
GND GND GND GND GND GND GND
B2 B8 B14 B20 B26 C5 C11
D32 D33 D34 D35 D36 D37 D38 D39 D40 D41 D42 D43 D44 D45 D46 D47 D48 D49 D50 D51 D52 D53 D54 D55 D56 D57 D58 D59 D60 D61 D62 D63
GND
D16 B18 A19 A21 C19 D18 B22 B24 A25 C21 C25 M26 A27 K28 D22 K26 B30 K30 B28 J25 C27 J27 D26 J29 D24 G27 D28 G29 D30 F30 F28 F26
C17
DD32 DD33 DD34 DD35 DD36 DD37 DD38 DD39 DD40 DD41 DD42 DD43 DD44 DD45 DD46 DD47 DD48 DD49 DD50 DD51 DD52 DD53 DD54 DD55 DD56 DD57 DD58 DD59 DD60 DD61 DD62 DD63
TP9006
DD[63..0]
4 DD[63..0]
3V3D
XGA DMD +3.3V DECOUPLING CAPS
C9055 0.1U/50V
C9071 0.1U/50V
C9072 0.1U/50V
C9073 0.1U/50V
Decoupling for DMD +5V
+ C9001 10U/16V AL
C9002 0.1U/50V
C9003 0.1U/50V
C9004 0.1U/50V
C9044 0.1U/50V
H
G
F
E
D
C
B
A
1 2 3 4 5 6 7 8 9 10


3V3D
IC9502
DD29
DD30
DD31
C13
A13
A15
D28
D29
D30
D31
A5 A11 A17 A23 A29 D2 H30 J1 M30 N1 V30 W1 AC5 AC9 AC15 AC21 AC27
3V3D
READ_OUT2 AB22
READ_OUT AA23
SCAN_TEST M28
TP9005
DMDSER 4
Decoupling for DMD VCC2
VCC2A P2
VCC2B R1
VCC2C T2
VCC2D U1
VCC2E N29
VCC2F P30
VCC2G R29
VCC2H T30
VCC2 4
C9028
1U/50V
AL
C9021
0.1U/50V
0603
C9035
0.1U/50V
0603
C9042
0.1U/50V
0603
C9050
0.1U/50V
0603
EVCC0 AB8
EVCC1 Y22
GND E27
GND E29
GND F2
GND F4
GND H26
GND H28
GND J3
GND J5
GND L25
GND L27
GND L29
GND M2
GND M4
GND N27
GND P4
GND P28
GND R3
GND T28
GND U3
GND U29
A12)
PC
DEVICE
D60
D61
D62
D63
F30
F28
F26
DD61
DD62
DD63
GND
C17 C23 C29 D8 D14 D20 V2 Y12 Y18 Y24 AA7 AA9 AA15 AA21 AB6 AB12 AB18 AB24 AB26 AC7

| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

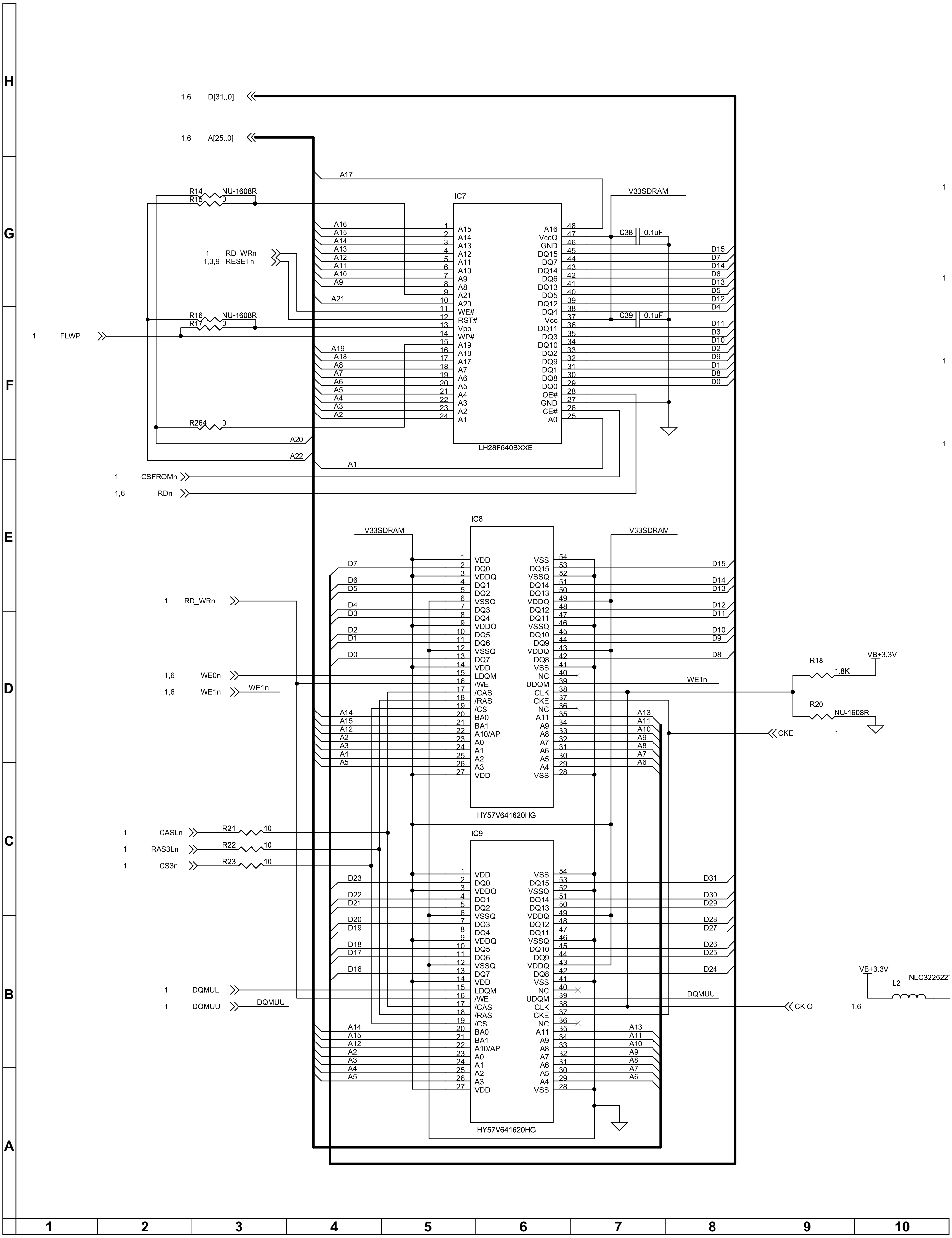
# ■PC I/F UNIT / PC-I/F-EINHEIT-1/10 (Ref. No. 8XXX → (IC3=IC8003))


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
D1
RB520S-30
PQ070XZ01
IC2
VI
VC
GND
TAB
VO
VADJ
VB+2.5V
VB+1.8V
R1
910(1%)
R2
2.15K(1%)
C4
150uF(PXA)/4V
C5
100uF/6.3V
C6
0.33uF
5 DDCDIO
2,6 A[25..0]
2,6 D[31..0]
C7
C8
0.1uF
C11
C13
C15
C16
C17
C21
1uF
IC3
SH7709S
VB+3.3V
C14
IC4
A0
A1
NC
GND
VCC
TEST
SCL
SDA
SCL33
SDA33
AT24C128N-10SC-2.7
R6
10Kx4
R7
10Kx4
FWP232C
8 IREQ4
6 C1_INTn
X1
32.768KHz
C25
10pF
C26
10pF
R8
NU-1608R
D2
MA3S137
D3
MA3S137
L1
NLC322522T-3R3M
C30
10uF(3216)
C31
10 TEMP1
9 TEMP2
9 TEMP3
R10
999
R263
100
R267
999
R268
100
R269
999
C34
NU-1608C
C35
NU-1608C
C361
NU-1608C
TL4
TL5
TL6
TL7
TL8
TL54
4 CTRVFC
10 PWRGOOD
R11
4.7K
2,3,9 RESETn
C36
100pF
2,10 DDPSCL
2,3,9 SDA33
10 RESETZ
8 IXSCL
8 IXSD
8 IXSLD
D0
D1
D2
D3
D4
VccQ
D5
VssQ
D6
D7
D8
D9
D10
D11
D12
D13
D14
D15
D16
D17
D18
Vcc
Vss
D19
D20
D21
D22
D23
D24
D25
D26
D27
D28
D29/PTB5
D30/PTB6
D31/PTB7
IRQ4/PTH4
IRQ3/IRL3/PTH3
IRQ2/IRL2/PTH2
IRQ1/IRL1/PTH1
IRQ0/IRL0/PTH0
NMI
VssRTC
EXTAL2
XTAL2
VccRTC
MD2
MD1
NC
AVss
AN7/DA0
AN6/DA1
AVcc
RESETP
RESETOUT/PTD2

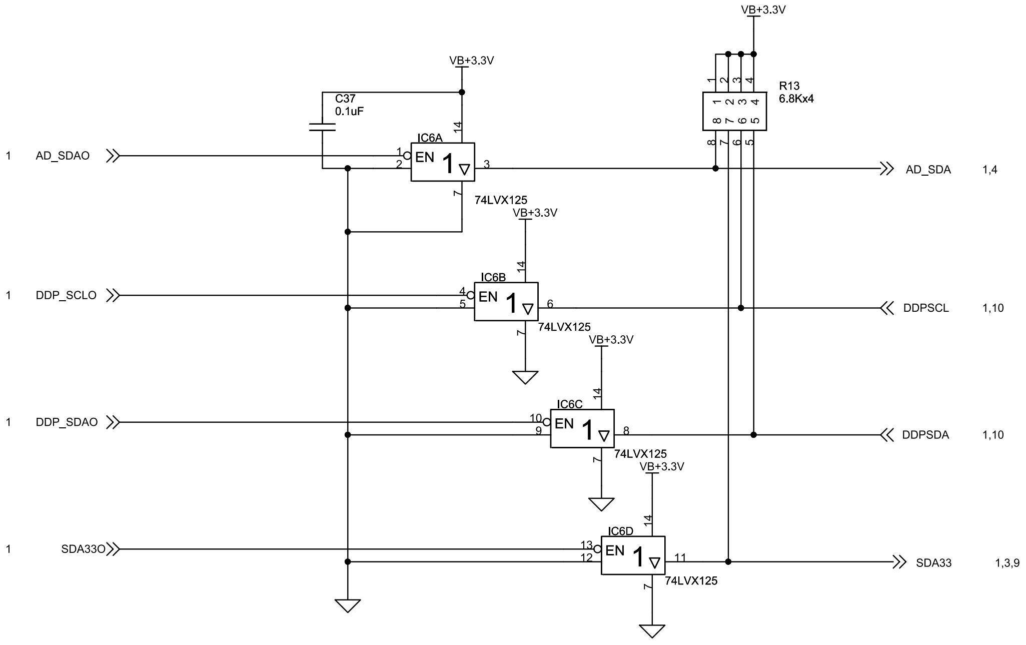

IC3
SH7709S
RDn 2,6
WE0n 2,6
WE1n 2,6
DQMUL 2
DQMUU 2
RD_WRn 2
AUDSYNCn 9
CSFROMn 2
SCL33 3,9
CS3n 2
CS4n 6
DDP_LIGHT 10
ENDIGTLO 5
VB+3,3V
R3 10Kx4
R4 10Kx4
R5 2.2K
TL2
CKE 2
RAS3Ln 2
CASLn 2
FLWP 2
SELRGB 3
SELRGB2 3
RST_PLLn 7
RST_C1 6,8
DDP_BUSY 10
DDP_SDAO 2
DDP_SCLO 2
AD_SDAO 2
UD_TDO 9
-WAIT_C1 6
ASEMD0 9
ASEBRKAK 9
DDPSDA 2,10
UD_AUD3 9
UD_AUD2 9
UD_AUD1 9
UD_AUD0 9
UD_TRST 9
UD_TMS 9
UD_TDI 9
UD_TCK 9
SII_SCDT 5
AD_SDA 2,4
FWP232C 2,9
UD_AUDCK 9
C12 0.1uF
C18 1uF
C19 1uF
C20 470pF
C22 470pF
C23 1uF
C24 1uF
R9 150
X2 CX-53F(16.588MHz)
C28 15pF
C29 15pF
V19_PLL
DDCSK 5
FL1 10-BLM18PG330SN1D
CKIO 2,6
TL3
C8 0.1uF
C9 1uF
C10 0.1uF
C32 1uF
C33 0.1uF
VB+3.3V
IC5 R3112N291A
OUT CD VDD GND NC
C27 0.01uF
RESETn 2,3,9
VB+1.8V
IC1 R3112N151A
C2 NU-1608C
C1 0.01uF
HS_SEL 4
SHTXD0 2
AD_SCL 4
SHTXD1 2
SII_RESET 5
SH2RXD0 9
SDA33O 2
SH2CTS0 9
SHRXD0 2
SHRXD1 2
SH2TXD0 9
SH2RTS0 9
TL9
R12 10Kx4
HPOFF
ENDIGTL
ENDIGTLO
DDCCS
ENDIGTL 5
DDCCS 5
HPOFF 5
RST_GA4n 8
REQ_TO_SH2 9
10
11
12
13
14
15
16
17
18
19

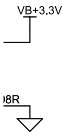
D40

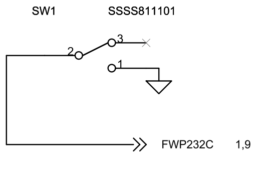
# ■PC I/F UNIT / PC-I/F-EINHEIT-2/10 (Ref. No. 8XXX → (IC7=IC8007))

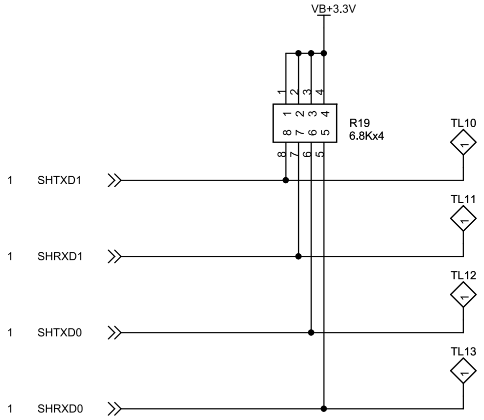


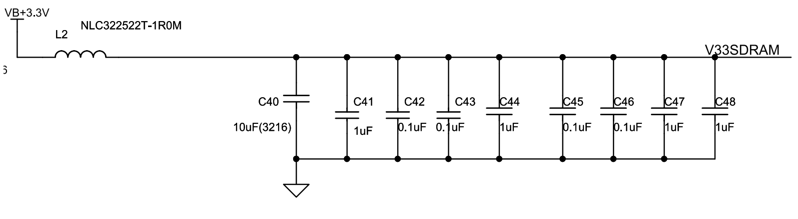
1,6 D[31..0]
1,6 A[25..0]
IC7
LH28F640BXXE
R14 NU-1608R
R15 0
R16 NU-1608R
R17 0
R264 0
1 RD_WRn
1,3,9 RESETn
1 FLWP
1 CSFROMn
1,6 RDn
V33SDRAM
C38 0.1uF
C39 0.1uF
A15 A14 A13 A12 A11 A10 A9 A8 A21 A20 WE# RST# Vpp WP# A19 A18 A17 A7 A6 A5 A4 A3 A2 A1
A16 VccQ GND DQ15 DQ7 DQ14 DQ6 DQ13 DQ5 DQ12 DQ4 Vcc DQ11 DQ3 DQ10 DQ2 DQ9 DQ1 DQ8 DQ0 OE# GND CE# A0
IC8
HY57V641620HG
IC9
HY57V641620HG
VDD DQ0 VDDQ DQ1 DQ2 VSSQ DQ3 DQ4 VDDQ DQ5 DQ6 VSSQ DQ7 VDD LDQM /WE /CAS /RAS /CS BA0 BA1 A10/AP A0 A1 A2 A3 VDD
VSS DQ15 VSSQ DQ14 DQ13 VDDQ DQ12 DQ11 VSSQ DQ10 DQ9 VDDQ DQ8 VSS NC UDQM CLK CKE NC A11 A9 A8 A7 A6 A5 A4 VSS
1 RD_WRn
1,6 WE0n
1,6 WE1n
WE1n
1 CASLn
R21 10
1 RAS3Ln
R22 10
1 CS3n
R23 10
1 DQMUL
1 DQMUU
DQMUU
R18 1.8K
VB+3.3V
R20 NU-1608R
CKE 1
CKIO 1,6
VB+3.3V
L2
NLC322522
H G F E D C B A
1 2 3 4 5 6 7 8 9 10


VB+3.3V
R13
6.8Kx4
VB+3.3V
C37
0.1uF
1 AD_SDAO
IC6A
EN 1
74LVX125
AD_SDA 1,4
VB+3.3V
IC6B
1 DDP_SCLO
74LVX125
DDPSCL 1,10
VB+3.3V
IC6C
1 DDP_SDAO
74LVX125
DDPSDA 1,10
VB+3.3V
IC6D
1 SDA33O
74LVX125
SDA33 1,3,9



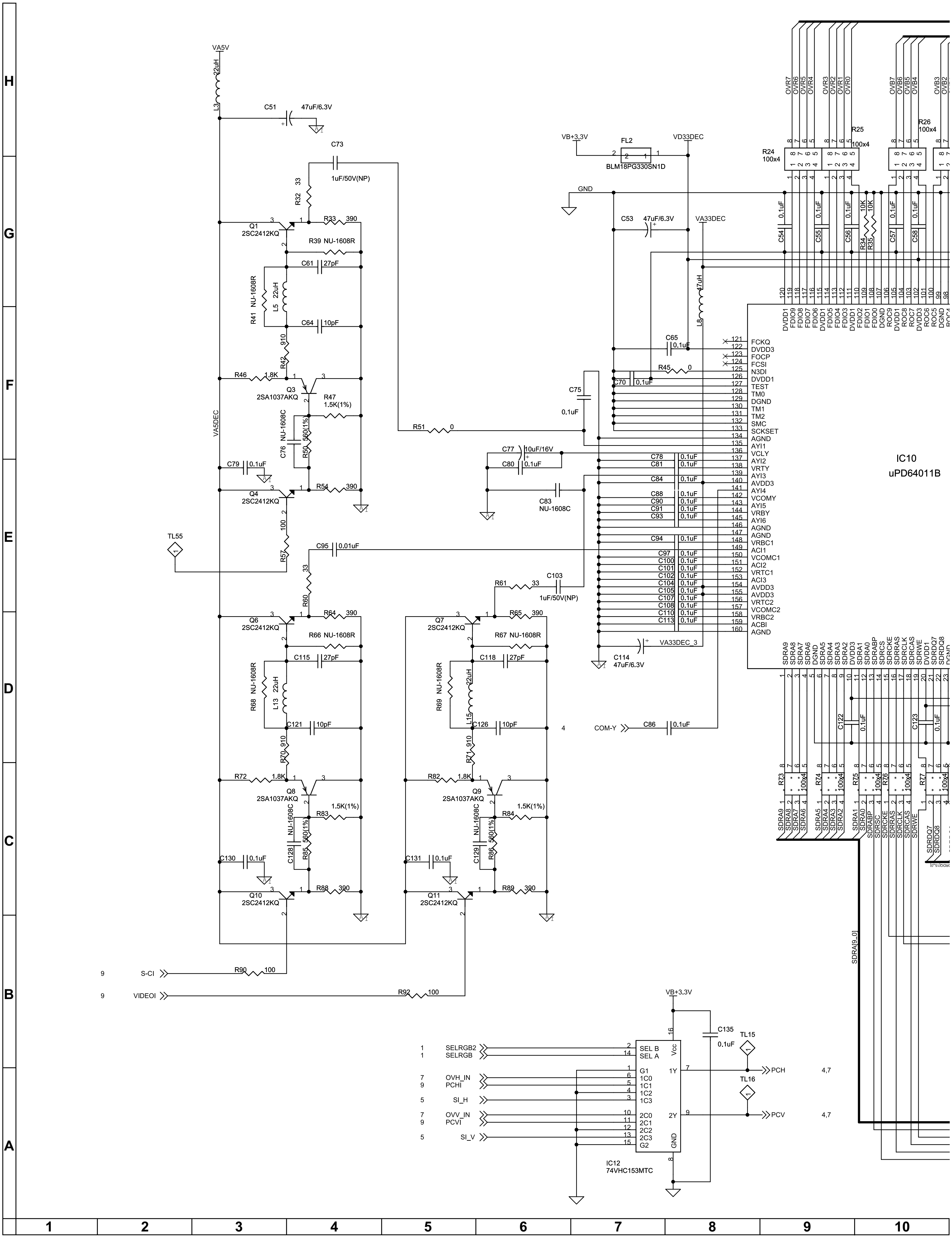

SW1
SSSS811101
FWP232C 1,9

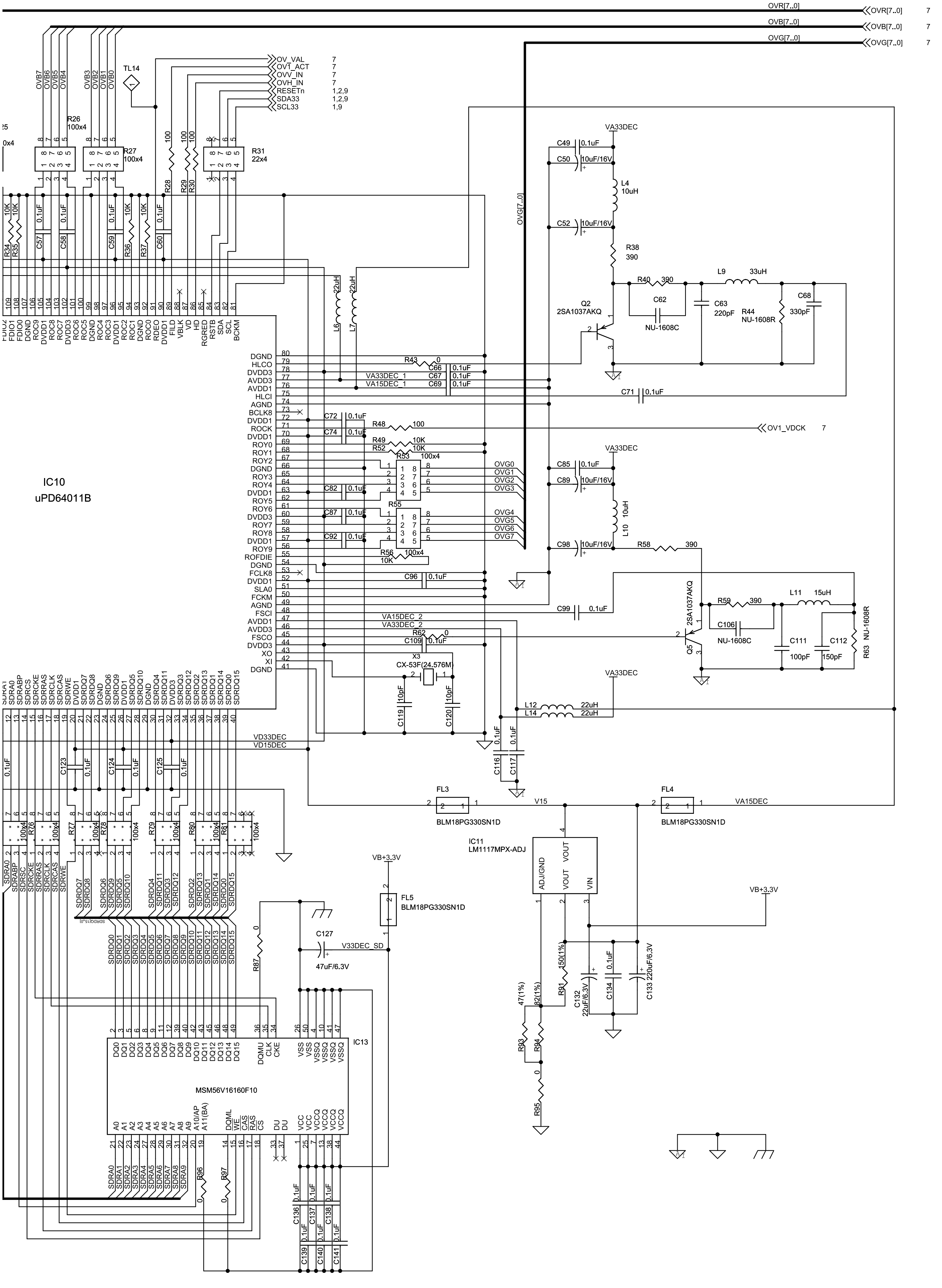

VB+3.3V
R19
6.8Kx4
TL10
TL11
TL12
TL13
1 SHTXD1
1 SHRXD1
1 SHTXD0
1 SHRXD0


VB+3.3V
L2
NLC322522T-1R0M
V33SDRAM
C40
10uF(3216)
C41
1uF
C42
0.1uF
C43
0.1uF
C44
1uF
C45
0.1uF
C46
0.1uF
C47
1uF
C48
1uF

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** |

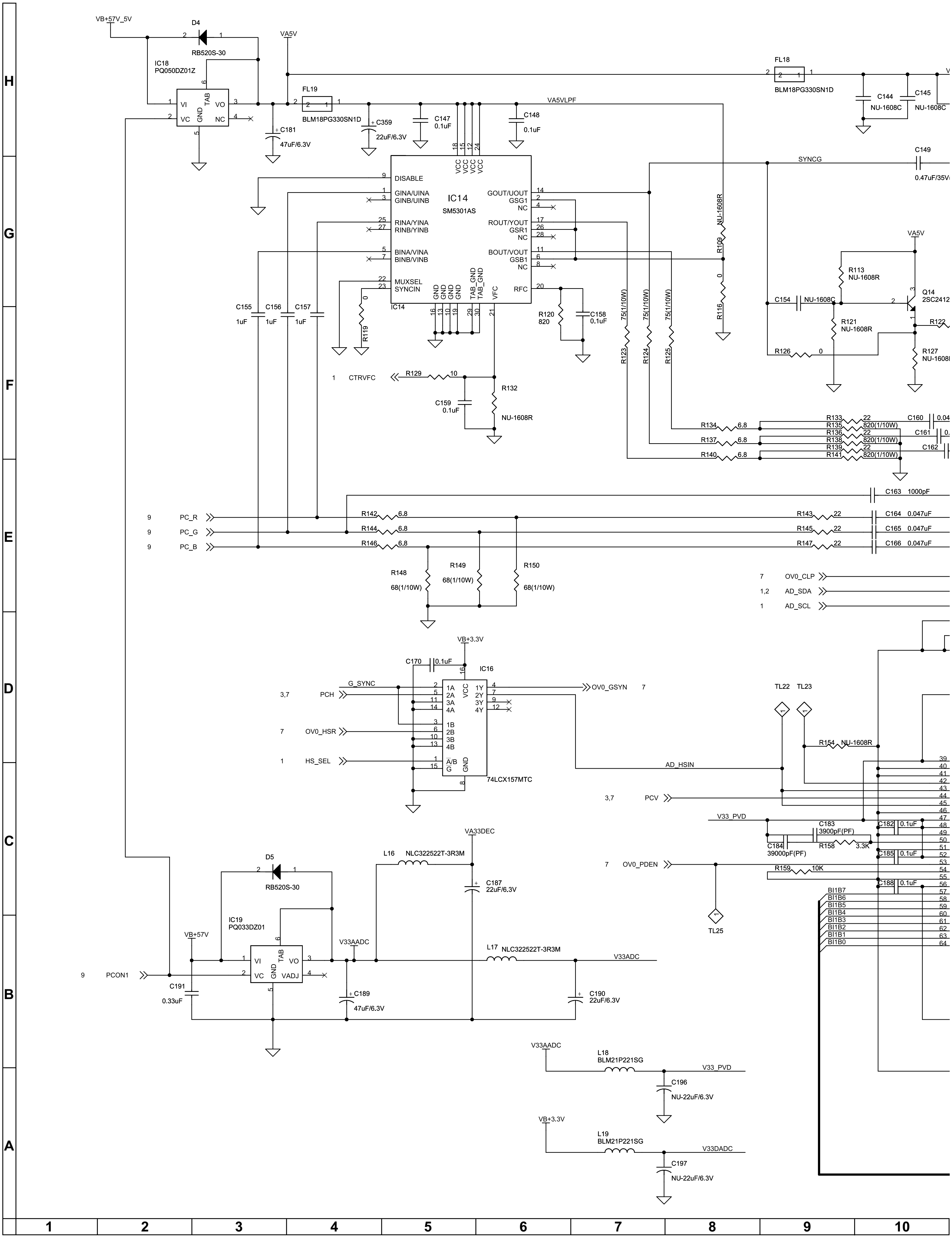
# ■PC I/F UNIT / PC-I/F-EINHEIT-3/10 (Ref. No. 8XXX → (IC10=IC8010))

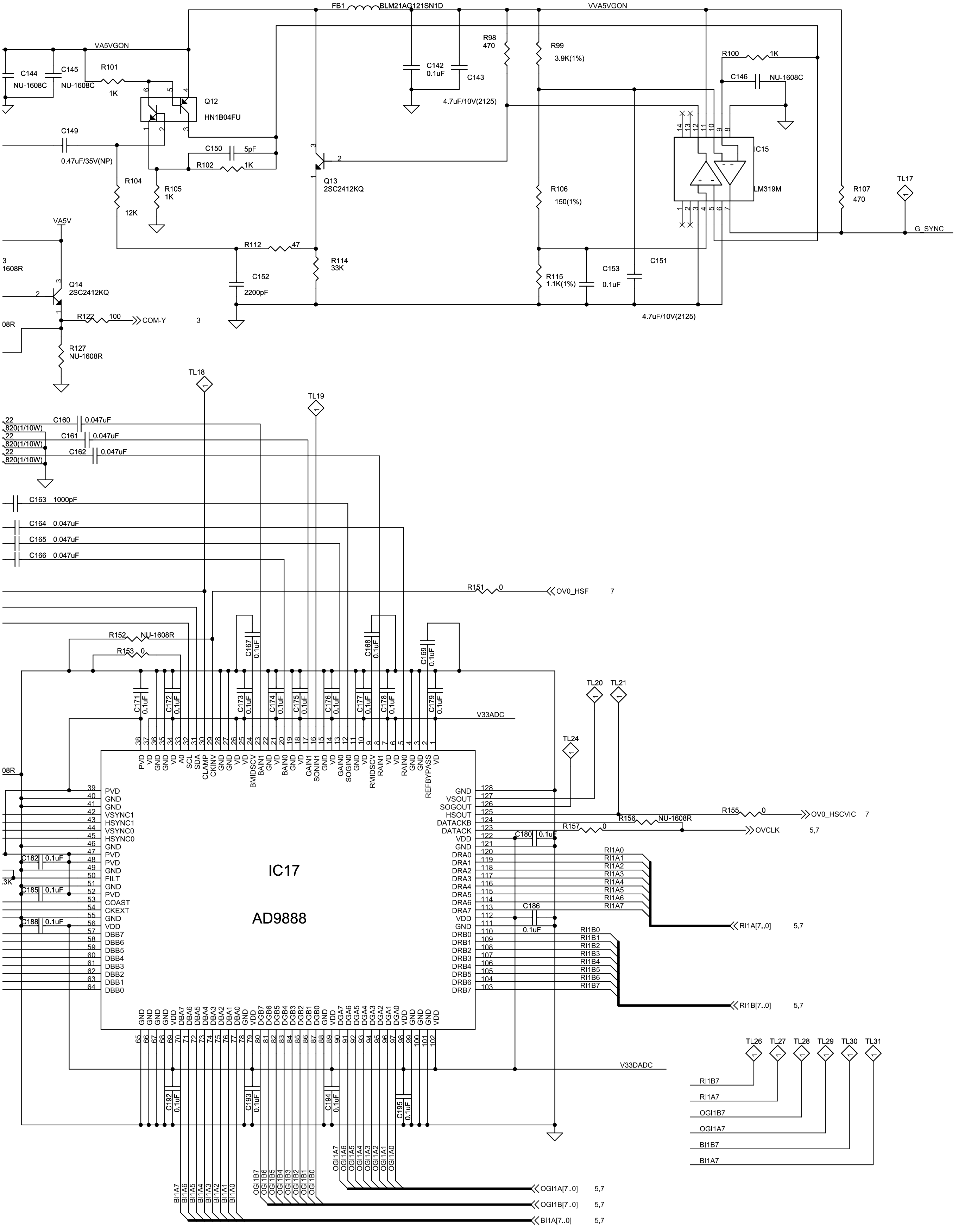

H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
VA5V
L3 22uH
C51 47uF/6.3V
C73 1uF/50V(NP)
R32 33
Q1 2SC2412KQ
R33 390
R39 NU-1608R
C61 27pF
R41 NU-1608R
L5 22uH
C64 10pF
R42 910
R46 1.8K
Q3 2SA1037AKQ
R47 1.5K(1%)
C76 NU-1608C
R50 560(1%)
VA5DEC
R51 0
C79 0.1uF
Q4 2SC2412KQ
R54 390
R57 100
TL55
C95 0.01uF
R60 33
Q6 2SC2412KQ
R64 390
R66 NU-1608R
C115 27pF
R68 NU-1608R
L13 22uH
C121 10pF
R70 910
R72 1.8K
Q8 2SA1037AKQ
R83 1.5K(1%)
C128 NU-1608C
R85 560(1%)
C130 0.1uF
Q10 2SC2412KQ
R88 390
R61 33
C103 1uF/50V(NP)
Q7 2SC2412KQ
R65 390
R67 NU-1608R
C118 27pF
R69 NU-1608R
L15 22uH
C126 10pF
R71 910
R82 1.8K
Q9 2SA1037AKQ
R84 1.5K(1%)
C129 NU-1608C
R86 560(1%)
C131 0.1uF
Q11 2SC2412KQ
R89 390
9 S-CI
R90 100
9 VIDEOI
R92 100
4 COM-Y
C86 0.1uF
VB+3.3V
FL2 BLM18PG330SN1D
VD33DEC
GND
C53 47uF/6.3V
VA33DEC
L8 47uH
C65 0.1uF
R45 0
C70 0.1uF
C75 0.1uF
C77 10uF/16V
C80 0.1uF
C83 NU-1608C
C78 0.1uF
C81 0.1uF
C84 0.1uF
C88 0.1uF
C90 0.1uF
C91 0.1uF
C93 0.1uF
C94 0.1uF
C97 0.1uF
C100 0.1uF
C101 0.1uF
C102 0.1uF
C104 0.1uF
C105 0.1uF
C107 0.1uF
C108 0.1uF
C110 0.1uF
C113 0.1uF
C114 47uF/6.3V
VA33DEC_3
IC10 uPD64011B
121 FCKQ
122 DVDD3
123 FOCP
124 FCSI
125 N3DI
126 DVDD1
127 TEST
128 TM0
129 DGND
130 TM1
131 TM2
132 SMC
133 SCKSET
134 AGND
135 AYI1
136 VCLY
137 AYI2
138 VRTY
139 AYI3
140 AVDD3
141 AYI4
142 VCOMY
143 AYI5
144 VRBY
145 AYI6
146 AGND
147 AGND
148 VRBC1
149 ACI1
150 VCOMC1
151 ACI2
152 VRTC1
153 ACI3
154 AVDD3
155 AVDD3
156 VRTC2
157 VCOMC2
158 VRBC2
159 ACBI
160 AGND
120 DVDD1
119 FDIO9
118 FDIO8
117 FDIO7
116 FDIO6
115 DVDD1
114 FDIO5
113 FDIO4
112 FDIO3
111 DVDD1
110 FDIO2
109 FDIO1
108 FDIO0
107 DGND
106 ROC9
105 DVDD1
104 ROC8
103 ROC7
102 DGND
101 ROC6
100 ROC5
99 DGND
98 ROC4
OVR7
OVR6
OVR5
OVR4
OVR3
OVR2
OVR1
OVR0
OVB7
OVB6
OVB5
OVB4
OVB3
OVB2
R24 100x4
R25 100x4
R26 100x4
C54 0.1uF
C55 0.1uF
C56 0.1uF
R34 10K
R35 10K
C57 0.1uF
C58 0.1uF
1 SDRA9
2 SDRA8
3 SDRA7
4 SDRA6
5 DGND
6 SDRA5
7 SDRA4
8 SDRA3
9 SDRA2
10 DVDD3
11 SDRA1
12 SDRA0
13 SDRABP
14 SDRCS
15 SDRCKE
16 SDRRAS
17 SDRCLK
18 SDRCAS
19 SDRWE
20 DVDD1
21 SDRDQ7
22 SDRDQ8
23 DGND
C122 0.1uF
C123 0.1uF
R73 100x4
R74 100x4
R75 100x4
R76 100x4
R77 100x4
SDRA9
SDRA8
SDRA7
SDRA6
SDRA5
SDRA4
SDRA3
SDRA2
SDRA1
SDRA0
SDRABP
SDRSC
SDRCKE
SDRRAS
SDRCLK
SDRCAS
SDRWE
SDRDQ7
SDRDQ8
SDRA[9..0]
VB+3.3V
C135 0.1uF
TL15
TL16
1 SELRGB2
1 SELRGB
7 OVH_IN
9 PCHI
5 SI_H
7 OVV_IN
9 PCVI
5 SI_V
SEL B
SEL A
G1
1C0
1C1
1C2
1C3
2C0
2C1
2C2
2C3
G2
Vcc
1Y
2Y
GND
PCH 4,7
PCV 4,7
IC12 74VHC153MTC



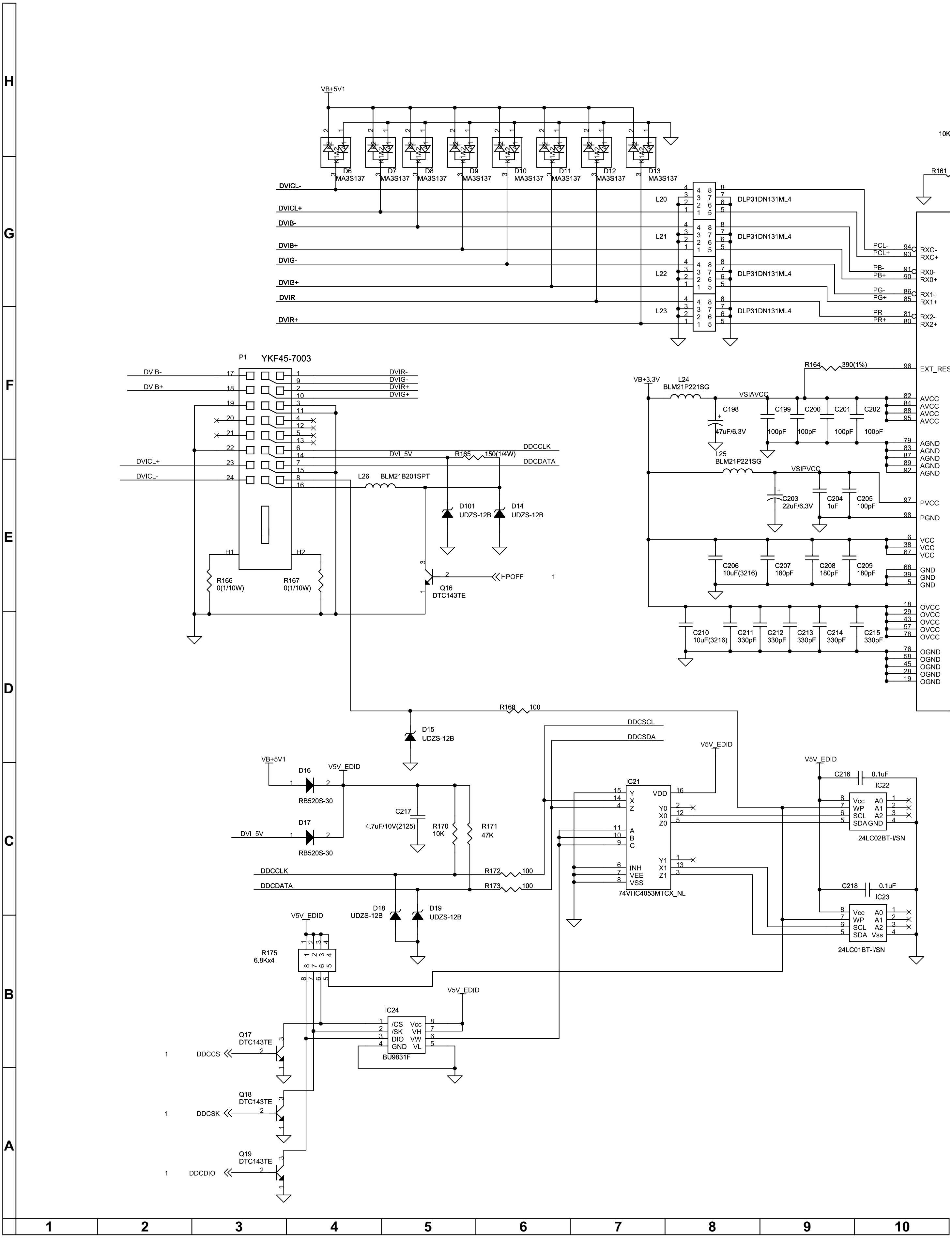
OVR[7..0]
OVB[7..0]
OVG[7..0]
7
OV_VAL
OV1_ACT
OVV_IN
OVH_IN
RESETn
SDA33
SCL33
1,2,9
1,9
TL14
R26
100x4
R27
100x4
R31
22x4
OVB7
OVB6
OVB5
OVB4
OVB3
OVB2
OVB1
OVB0
R28
R29
R30
100
10K
0.1uF
R34
R35
C57
C58
C59
R36
R37
C60
IC10
uPD64011B
DGND
HLCO
DVDD3
AVDD3
AVDD1
HLCI
AGND
BCLK8
DVDD1
ROCK
ROY0
ROY1
ROY2
ROY3
ROY4
ROY5
ROY6
ROY7
ROY8
ROY9
ROFDIE
FCLK8
SLA0
FCKM
FSCI
FSCO
XO
XI
VA33DEC
C49
C50
10uF/16V
L4
10uH
C52
R38
390
R40
L9
33uH
C62
C63
220pF
R44
NU-1608R
C68
330pF
NU-1608C
Q2
2SA1037AKQ
R43
0
C66
C67
C69
VA33DEC_1
VA15DEC_1
C71
C72
C74
R48
R49
R52
R53
R55
R56
OVG0
OVG1
OVG2
OVG3
OVG4
OVG5
OVG6
OVG7
OV1_VDCK
C82
C87
C92
C85
C89
L10
C98
R58
C96
C99
Q5
R59
L11
15uH
C106
C111
100pF
C112
150pF
R63
VA15DEC_2
VA33DEC_2
R62
C109
X3
CX-53F(24.576M)
C119
C120
10pF
L6
L7
22uH
L12
L14
C116
C117
VD33DEC
VD15DEC
C123
C124
C125
R76
R77
R78
R79
R80
R81
FL3
BLM18PG330SN1D
V15
FL4
VA15DEC
IC11
LM1117MPX-ADJ
ADJ/GND
VOUT
VIN
VB+3.3V
FL5
C127
47uF/6.3V
V33DEC_SD
R87
R91
150(1%)
R93
47(1%)
R94
82(1%)
R95
C132
22uF/6.3V
C134
C133
220uF/6.3V
IC13
MSM56V16160F10
DQ0
DQ15
DQMU
CLK
CKE
VSS
VSSQ
A0
A10/AP
A11(BA)
DQML
WE
CAS
RAS
CS
DU
VCC
VCCQ
R96
R97
C136
C137
C138
C139
C140
C141
10
11
12
13
14
15
16
17
18
19

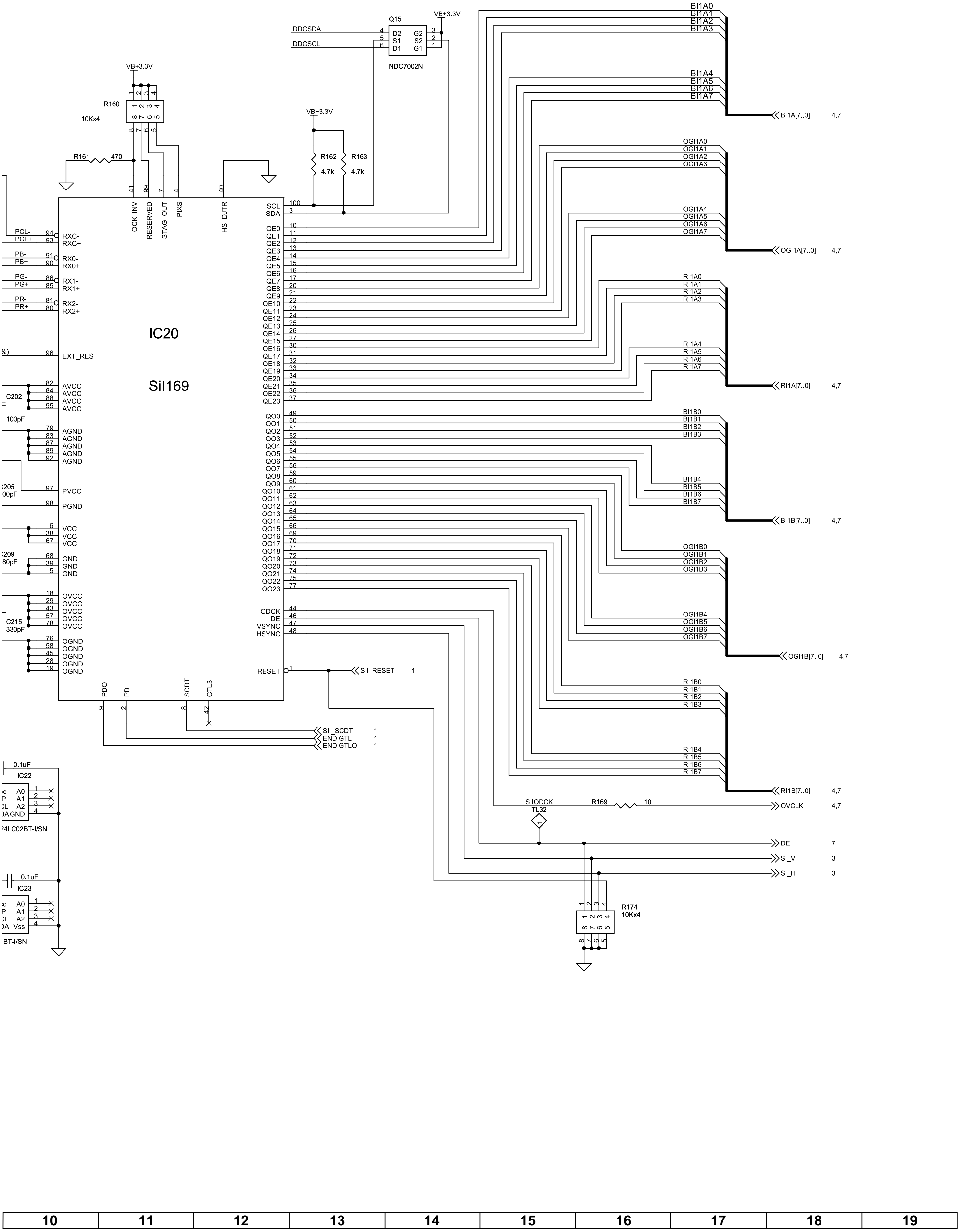
## ■PC I/F UNIT / PC-I/F-EINHEIT-4/10 (Ref. No. 8XXX → (IC17=IC8017))


VB+57V_5V
D4
RB520S-30
VA5V
IC18
PQ050DZ01Z
VI
VC
TAB
GND
VO
NC
C181
47uF/6.3V
FL19
BLM18PG330SN1D
C359
22uF/6.3V
C147
0.1uF
C148
0.1uF
VA5VLPF
FL18
BLM18PG330SN1D
C144
NU-1608C
C145
NU-1608C
SYNCG
C149
0.47uF/35V
IC14
SM5301AS
DISABLE
GINA/UINA
GINB/UINB
RINA/YINA
RINB/YINB
BINA/VINA
BINB/VINB
MUXSEL
SYNCIN
VCC
GOUT/UOUT
GSG1
NC
ROUT/YOUT
GSR1
BOUT/VOUT
GSB1
RFC
GND
TAB_GND
VFC
C155
1uF
C156
1uF
C157
1uF
R119
0
R120
820
C158
0.1uF
R109
NU-1608R
R116
0
R123
75(1/10W)
R124
75(1/10W)
R125
75(1/10W)
VA5V
R113
NU-1608R
Q14
2SC2412
C154
NU-1608C
R121
NU-1608R
R122
R126
0
R127
NU-1608R
1
CTRVFC
R129
10
C159
0.1uF
R132
NU-1608R
R134
6.8
R137
6.8
R140
6.8
R133
22
R135
820(1/10W)
R136
22
R138
820(1/10W)
R139
22
R141
820(1/10W)
C160
C161
C162
C163
1000pF
9
PC_R
9
PC_G
9
PC_B
R142
6.8
R144
6.8
R146
6.8
R143
22
R145
22
R147
22
C164
0.047uF
C165
0.047uF
C166
0.047uF
R148
68(1/10W)
R149
68(1/10W)
R150
68(1/10W)
7
OV0_CLP
1,2
AD_SDA
1
AD_SCL
VB+3.3V
C170
0.1uF
IC16
74LCX157MTC
G_SYNC
3,7
PCH
7
OV0_HSR
1
HS_SEL
1A
2A
3A
4A
1B
2B
3B
4B
A/B
G
VCC
GND
1Y
2Y
3Y
4Y
OV0_GSYN
7
TL22
TL23
R154
NU-1608R
AD_HSIN
3,7
PCV
V33_PVD
C183
3900pF(PF)
C184
39000pF(PF)
R158
3.3K
C182
0.1uF
C185
0.1uF
C188
0.1uF
7
OV0_PDEN
R159
10K
TL25
BI1B7
BI1B6
BI1B5
BI1B4
BI1B3
BI1B2
BI1B1
BI1B0
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
VA33DEC
D5
RB520S-30
L16
NLC322522T-3R3M
C187
22uF/6.3V
IC19
PQ033DZ01
VB+57V
VI
VC
TAB
GND
VO
VADJ
V33AADC
L17
NLC322522T-3R3M
V33ADC
9
PCON1
C191
0.33uF
C189
47uF/6.3V
C190
22uF/6.3V
V33AADC
L18
BLM21P221SG
V33_PVD
C196
NU-22uF/6.3V
VB+3.3V
L19
BLM21P221SG
V33DADC
C197
NU-22uF/6.3V
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

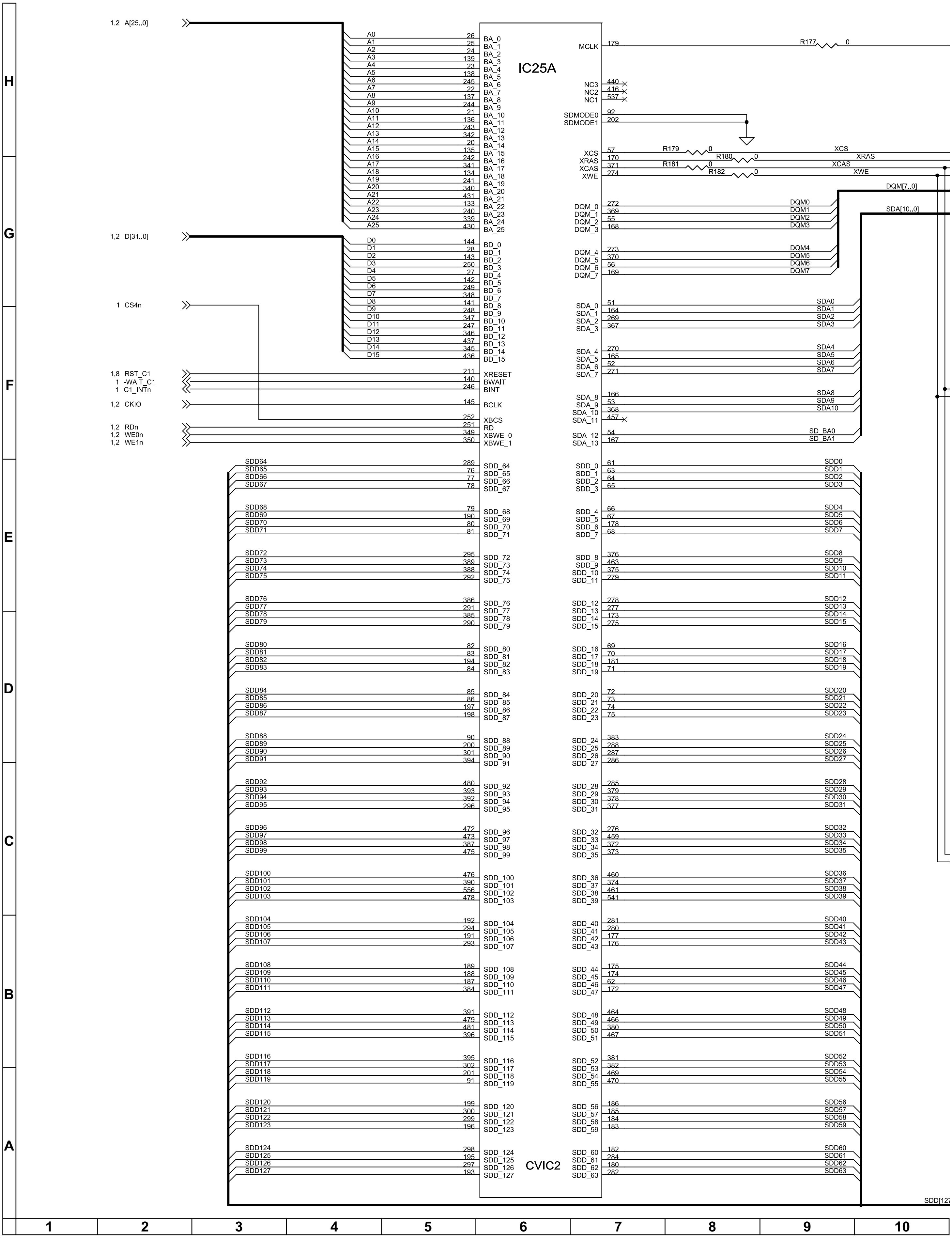

FB1
BLM21AG121SN1D
VVA5VGON
VA5VGON
C144
C145
NU-1608C
R101
1K
Q12
HN1B04FU
C149
0.47uF/35V(NP)
C150
5pF
R102
1K
R104
12K
R105
1K
C142
0.1uF
C143
4.7uF/10V(2125)
R98
470
R99
3.9K(1%)
R100
1K
C146
NU-1608C
IC15
LM319M
Q13
2SC2412KQ
R106
150(1%)
R107
470
TL17
G_SYNC
VA5V
Q14
2SC2412KQ
1608R
R112
47
R114
33K
C152
2200pF
R115
1.1K(1%)
C153
0.1uF
C151
4.7uF/10V(2125)
R122
100
COM-Y
3
08R
R127
NU-1608R
TL18
TL19
22
820(1/10W)
C160
0.047uF
C161
0.047uF
C162
0.047uF
C163
1000pF
C164
0.047uF
C165
0.047uF
C166
0.047uF
R151
0
OV0_HSF
7
R152
NU-1608R
R153
0
C167
C168
C169
0.1uF
C171
C172
C173
C174
C175
C176
C177
C178
C179
V33ADC
TL20
TL21
TL24
PVD
VD
GND
A1
A0
SCL
SDA
CLAMP
CKINV
BMIDSCV
BAIN1
BAIN0
GAIN1
SOGIN1
GAIN0
SOGIN0
RMIDSCV
RAIN1
RAIN0
REFBYPASS
VSOUT
SOGOUT
HSOUT
DATACKB
DATACK
VDD
VSYNC1
HSYNC1
VSYNC0
HSYNC0
FILT
COAST
CKEXT
IC17
AD9888
DRA0
DRA1
DRA2
DRA3
DRA4
DRA5
DRA6
DRA7
DRB0
DRB1
DRB2
DRB3
DRB4
DRB5
DRB6
DRB7
DBB0
DBB1
DBB2
DBB3
DBB4
DBB5
DBB6
DBB7
DBA0
DBA1
DBA2
DBA3
DBA4
DBA5
DBA6
DBA7
DGB0
DGB1
DGB2
DGB3
DGB4
DGB5
DGB6
DGB7
DGA0
DGA1
DGA2
DGA3
DGA4
DGA5
DGA6
DGA7
R155
0
OV0_HSCVIC
7
R156
NU-1608R
R157
0
OVCLK
5,7
C180
0.1uF
C182
0.1uF
C185
0.1uF
C188
0.1uF
3K
C186
0.1uF
RI1A0
RI1A1
RI1A2
RI1A3
RI1A4
RI1A5
RI1A6
RI1A7
RI1A[7..0]
5,7
RI1B0
RI1B1
RI1B2
RI1B3
RI1B4
RI1B5
RI1B6
RI1B7
RI1B[7..0]
5,7
V33DADC
C192
C193
C194
C195
0.1uF
TL26
TL27
TL28
TL29
TL30
TL31
RI1B7
RI1A7
OGI1B7
OGI1A7
BI1B7
BI1A7
BI1A7
BI1A6
BI1A5
BI1A4
BI1A3
BI1A2
BI1A1
BI1A0
OGI1B7
OGI1B6
OGI1B5
OGI1B4
OGI1B3
OGI1B2
OGI1B1
OGI1B0
OGI1A7
OGI1A6
OGI1A5
OGI1A4
OGI1A3
OGI1A2
OGI1A1
OGI1A0
OGI1A[7..0]
5,7
OGI1B[7..0]
5,7
BI1A[7..0]
5,7
BI1B[7..0]
5,7
10
11
12
13
14
15
16
17
18
19

# ■PC I/F UNIT / PC-I/F-EINHEIT-5/10 (Ref. No. 8XXX → (IC20=IC8020))

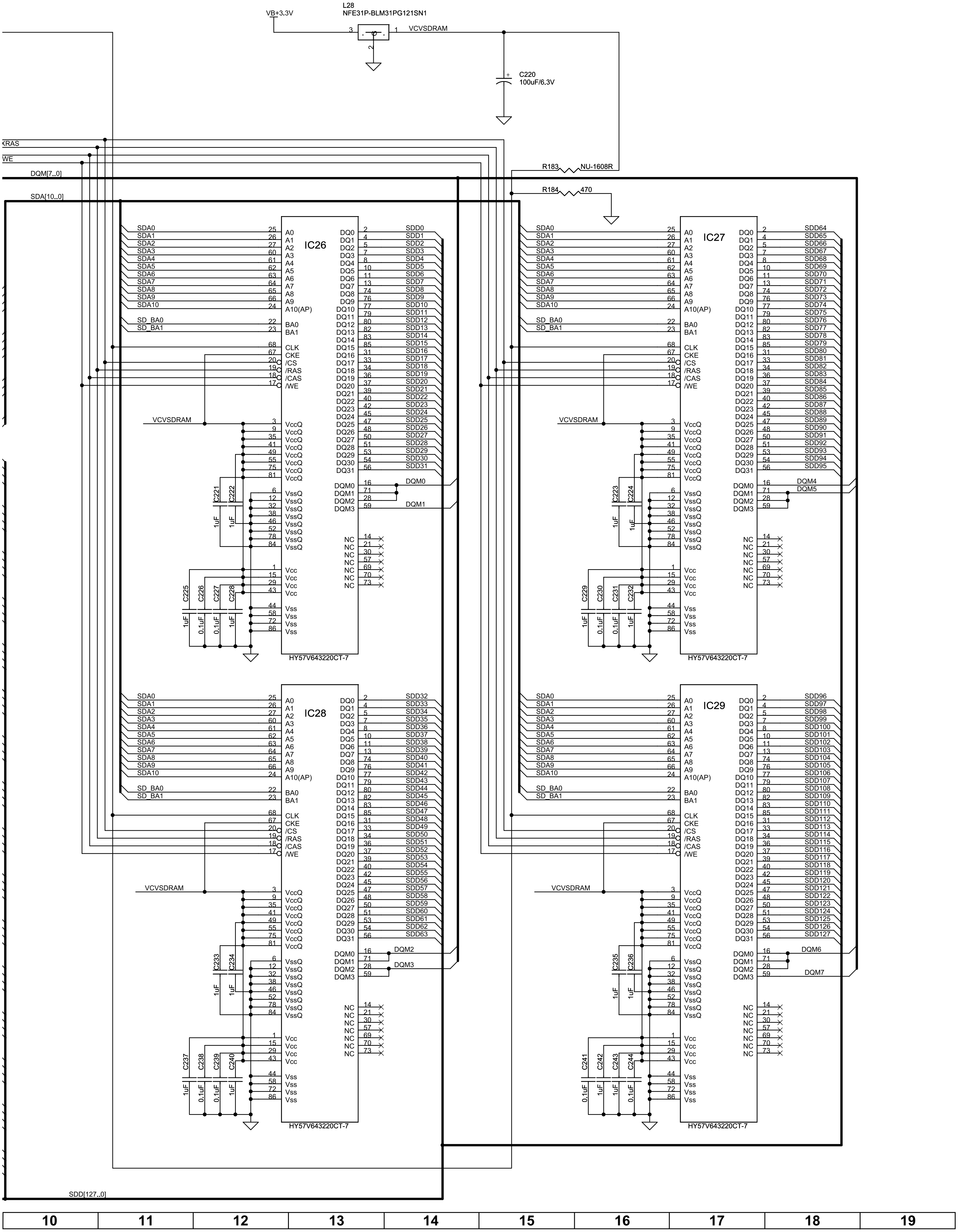

H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
VB+5V1
D6 MA3S137
D7 MA3S137
D8 MA3S137
D9 MA3S137
D10 MA3S137
D11 MA3S137
D12 MA3S137
D13 MA3S137
DVICL-
DVICL+
DVIB-
DVIB+
DVIG-
DVIG+
DVIR-
DVIR+
L20 DLP31DN131ML4
L21 DLP31DN131ML4
L22 DLP31DN131ML4
L23 DLP31DN131ML4
10K
R161
PCL-
PCL+
PB-
PB+
PG-
PG+
PR-
PR+
RXC-
RXC+
RX0-
RX0+
RX1-
RX1+
RX2-
RX2+
EXT_RES
R164 390(1%)
P1 YKF45-7003
DVIR-
DVIG-
DVIR+
DVIG+
DDCCLK
DDCDATA
DVI_5V
R165 150(1/4W)
L26 BLM21B201SPT
D101 UDZS-12B
D14 UDZS-12B
H1
H2
R166 0(1/10W)
R167 0(1/10W)
Q16 DTC143TE
HPOFF
VB+3.3V
L24 BLM21P221SG
VSIAVCC
C198 47uF/6.3V
C199 100pF
C200 100pF
C201 100pF
C202 100pF
AVCC
AGND
L25 BLM21P221SG
VSIPVCC
C203 22uF/6.3V
C204 1uF
C205 100pF
PVCC
PGND
VCC
GND
C206 10uF(3216)
C207 180pF
C208 180pF
C209 180pF
OVCC
OGND
C210 10uF(3216)
C211 330pF
C212 330pF
C213 330pF
C214 330pF
C215 330pF
R168 100
D15 UDZS-12B
DDCSCL
DDCSDA
V5V_EDID
D16 RB520S-30
D17 RB520S-30
C217 4.7uF/10V(2125)
R170 10K
R171 47K
IC21 74VHC4053MTCX_NL
R172 100
R173 100
D18 UDZS-12B
D19 UDZS-12B
C216 0.1uF
IC22 24LC02BT-I/SN
C218 0.1uF
IC23 24LC01BT-I/SN
Vcc WP SCL SDA A0 A1 A2 GND Vss
R175 6.8Kx4
IC24 BU9831F
/CS /SK DIO GND Vcc VH VW VL
Q17 DTC143TE
DDCCS
Q18 DTC143TE
DDCSK
Q19 DTC143TE
DDCDIO


IC20
SiI169
Q15
NDC7002N
D2 S1 D1 G2 S2 G1
DDCSDA
DDCSCL
VB+3.3V
R160
10Kx4
R161 470
R162 4.7k
R163 4.7k
OCK_INV
RESERVED
STAG_OUT
PIXS
HS_DJTR
SCL
SDA
PCL- PCL+ PB- PB+ PG- PG+ PR- PR+
RXC- RXC+ RX0- RX0+ RX1- RX1+ RX2- RX2+
EXT_RES
AVCC AGND PVCC PGND VCC GND OVCC OGND
C202 100pF
C205
C209
C215 330pF
QE0 … QE23
QO0 … QO23
ODCK DE VSYNC HSYNC
RESET
PDO PD SCDT CTL3
BI1A0 BI1A1 BI1A2 BI1A3 BI1A4 BI1A5 BI1A6 BI1A7
BI1A[7..0] 4,7
OGI1A0 OGI1A1 OGI1A2 OGI1A3 OGI1A4 OGI1A5 OGI1A6 OGI1A7
OGI1A[7..0] 4,7
RI1A0 RI1A1 RI1A2 RI1A3 RI1A4 RI1A5 RI1A6 RI1A7
RI1A[7..0] 4,7
BI1B0 BI1B1 BI1B2 BI1B3 BI1B4 BI1B5 BI1B6 BI1B7
BI1B[7..0] 4,7
OGI1B0 OGI1B1 OGI1B2 OGI1B3 OGI1B4 OGI1B5 OGI1B6 OGI1B7
OGI1B[7..0] 4,7
RI1B0 RI1B1 RI1B2 RI1B3 RI1B4 RI1B5 RI1B6 RI1B7
RI1B[7..0] 4,7
SII_RESET 1
SII_SCDT 1
ENDIGTL 1
ENDIGTLO 1
SIIODCK
TL32
R169 10
OVCLK 4,7
DE 7
SI_V 3
SI_H 3
R174 10Kx4
0.1uF
IC22
A0 A1 A2 GND
24LC02BT-I/SN
IC23
A0 A1 A2 Vss
BT-I/SN
10 11 12 13 14 15 16 17 18 19

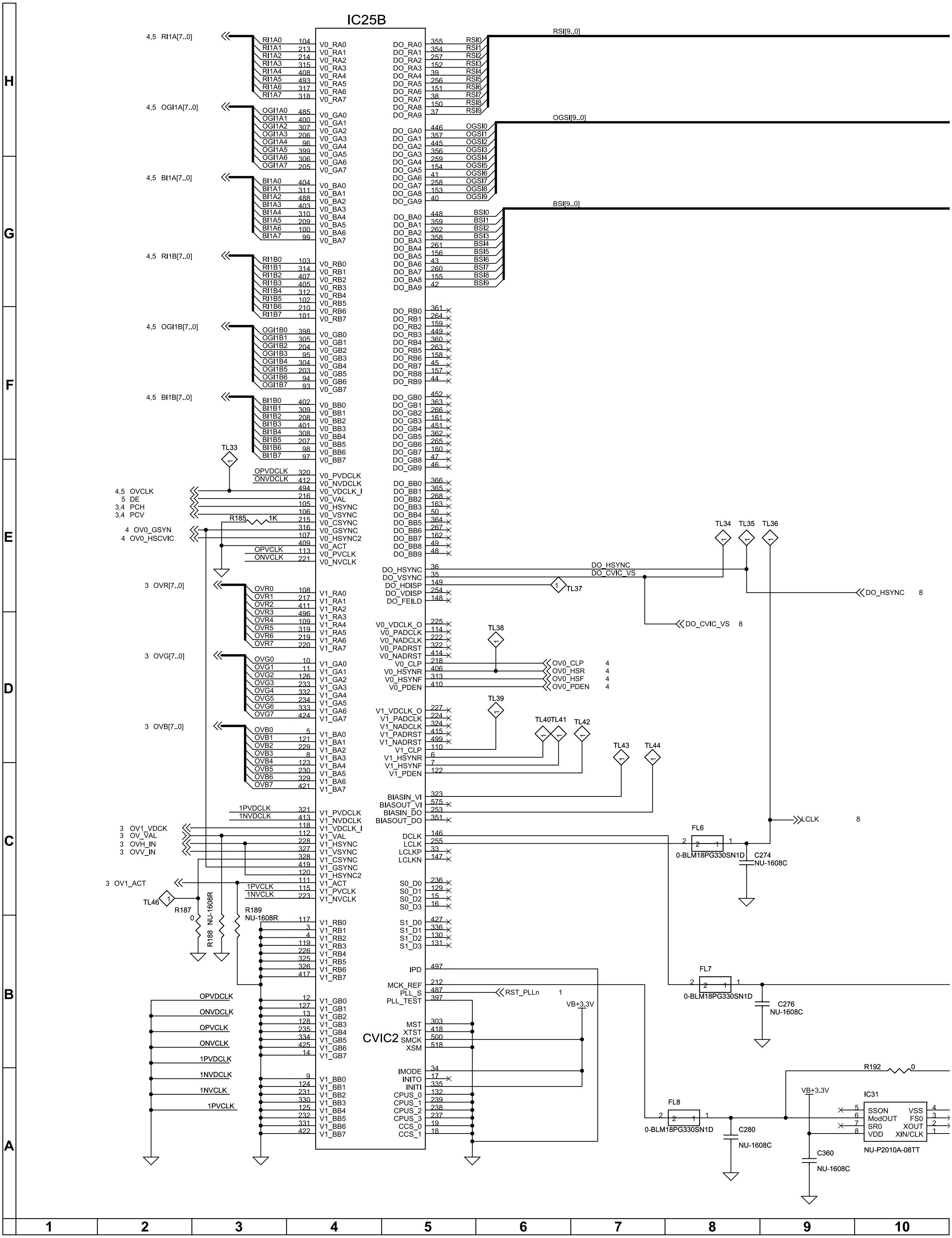
# ■PC I/F UNIT / PC-I/F-EINHEIT-6/10 (Ref. No. 8XXX → (IC25A=IC8025A))

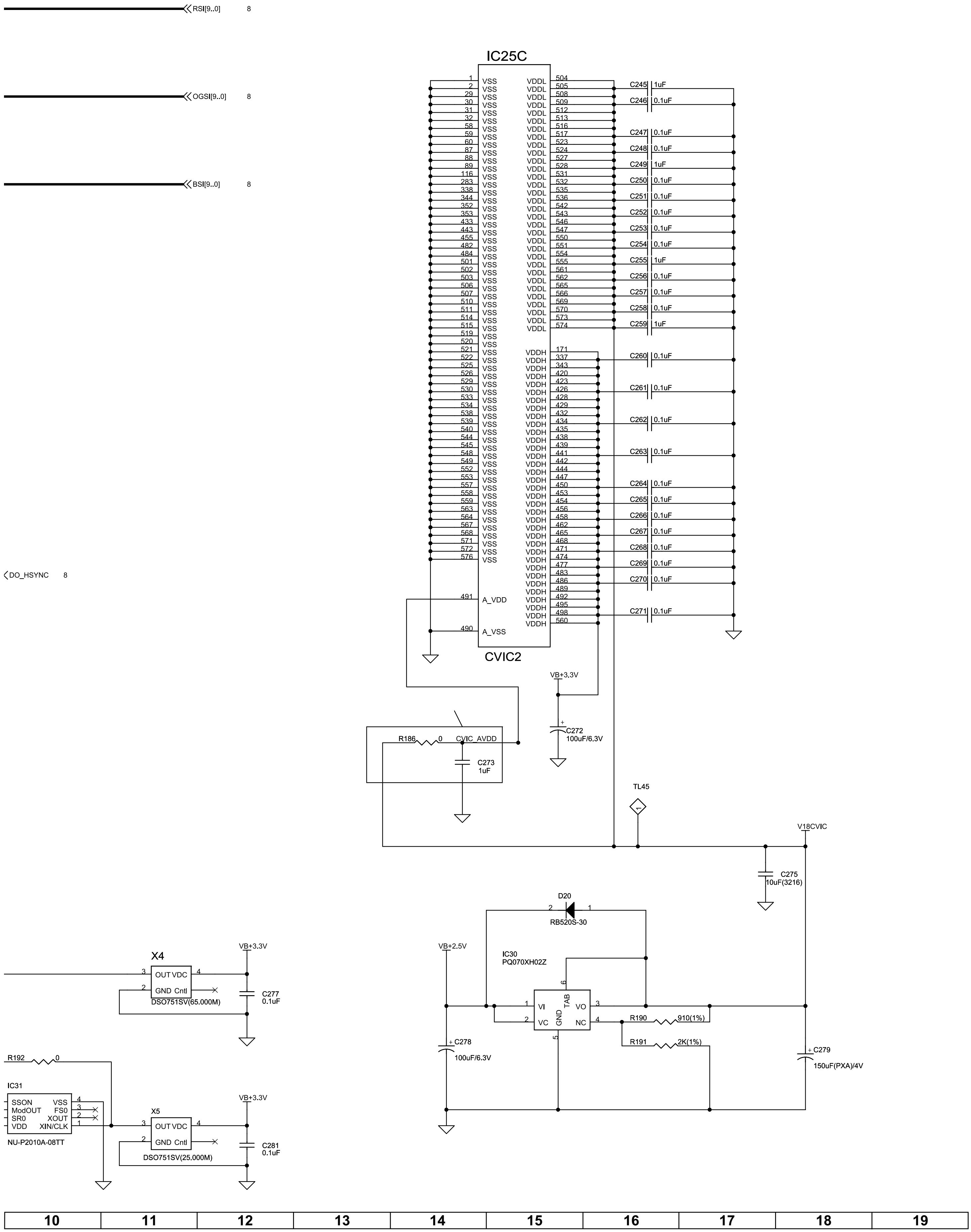


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
1,2 A[25..0]
1,2 D[31..0]
1 CS4n
1,8 RST_C1
1 -WAIT_C1
1 C1_INTn
1,2 CKIO
1,2 RDn
1,2 WE0n
1,2 WE1n
IC25A
CVIC2
A0 26 BA_0
A1 25 BA_1
A2 24 BA_2
A3 139 BA_3
A4 23 BA_4
A5 138 BA_5
A6 245 BA_6
A7 22 BA_7
A8 137 BA_8
A9 244 BA_9
A10 21 BA_10
A11 136 BA_11
A12 243 BA_12
A13 342 BA_13
A14 20 BA_14
A15 135 BA_15
A16 242 BA_16
A17 341 BA_17
A18 134 BA_18
A19 241 BA_19
A20 340 BA_20
A21 431 BA_21
A22 133 BA_22
A23 240 BA_23
A24 339 BA_24
A25 430 BA_25
D0 144 BD_0
D1 28 BD_1
D2 143 BD_2
D3 250 BD_3
D4 27 BD_4
D5 142 BD_5
D6 249 BD_6
D7 348 BD_7
D8 141 BD_8
D9 248 BD_9
D10 347 BD_10
D11 247 BD_11
D12 346 BD_12
D13 437 BD_13
D14 345 BD_14
D15 436 BD_15
211 XRESET
140 BWAIT
246 BINT
145 BCLK
252 XBCS
251 RD
349 XBWE_0
350 XBWE_1
SDD64 289 SDD_64
SDD65 76 SDD_65
SDD66 77 SDD_66
SDD67 78 SDD_67
SDD68 79 SDD_68
SDD69 190 SDD_69
SDD70 80 SDD_70
SDD71 81 SDD_71
SDD72 295 SDD_72
SDD73 389 SDD_73
SDD74 388 SDD_74
SDD75 292 SDD_75
SDD76 386 SDD_76
SDD77 291 SDD_77
SDD78 385 SDD_78
SDD79 290 SDD_79
SDD80 82 SDD_80
SDD81 83 SDD_81
SDD82 194 SDD_82
SDD83 84 SDD_83
SDD84 85 SDD_84
SDD85 86 SDD_85
SDD86 197 SDD_86
SDD87 198 SDD_87
SDD88 90 SDD_88
SDD89 200 SDD_89
SDD90 301 SDD_90
SDD91 394 SDD_91
SDD92 480 SDD_92
SDD93 393 SDD_93
SDD94 392 SDD_94
SDD95 296 SDD_95
SDD96 472 SDD_96
SDD97 473 SDD_97
SDD98 387 SDD_98
SDD99 475 SDD_99
SDD100 476 SDD_100
SDD101 390 SDD_101
SDD102 556 SDD_102
SDD103 478 SDD_103
SDD104 192 SDD_104
SDD105 294 SDD_105
SDD106 191 SDD_106
SDD107 293 SDD_107
SDD108 189 SDD_108
SDD109 188 SDD_109
SDD110 187 SDD_110
SDD111 384 SDD_111
SDD112 391 SDD_112
SDD113 479 SDD_113
SDD114 481 SDD_114
SDD115 396 SDD_115
SDD116 395 SDD_116
SDD117 302 SDD_117
SDD118 201 SDD_118
SDD119 91 SDD_119
SDD120 199 SDD_120
SDD121 300 SDD_121
SDD122 299 SDD_122
SDD123 196 SDD_123
SDD124 298 SDD_124
SDD125 195 SDD_125
SDD126 297 SDD_126
SDD127 193 SDD_127
MCLK 179
R177 0
NC3 440
NC2 416
NC1 537
SDMODE0 92
SDMODE1 202
XCS 57
XRAS 170
XCAS 371
XWE 274
R179 0
R180 0
R181 0
R182 0
XCS
XRAS
XCAS
XWE
DQM[7..0]
SDA[10..0]
DQM_0 272 DQM0
DQM_1 369 DQM1
DQM_2 55 DQM2
DQM_3 168 DQM3
DQM_4 273 DQM4
DQM_5 370 DQM5
DQM_6 56 DQM6
DQM_7 169 DQM7
SDA_0 51 SDA0
SDA_1 164 SDA1
SDA_2 269 SDA2
SDA_3 367 SDA3
SDA_4 270 SDA4
SDA_5 165 SDA5
SDA_6 52 SDA6
SDA_7 271 SDA7
SDA_8 166 SDA8
SDA_9 53 SDA9
SDA_10 368 SDA10
SDA_11 457
SDA_12 54 SD_BA0
SDA_13 167 SD_BA1
SDD_0 61 SDD0
SDD_1 63 SDD1
SDD_2 64 SDD2
SDD_3 65 SDD3
SDD_4 66 SDD4
SDD_5 67 SDD5
SDD_6 178 SDD6
SDD_7 68 SDD7
SDD_8 376 SDD8
SDD_9 463 SDD9
SDD_10 375 SDD10
SDD_11 279 SDD11
SDD_12 278 SDD12
SDD_13 277 SDD13
SDD_14 173 SDD14
SDD_15 275 SDD15
SDD_16 69 SDD16
SDD_17 70 SDD17
SDD_18 181 SDD18
SDD_19 71 SDD19
SDD_20 72 SDD20
SDD_21 73 SDD21
SDD_22 74 SDD22
SDD_23 75 SDD23
SDD_24 383 SDD24
SDD_25 288 SDD25
SDD_26 287 SDD26
SDD_27 286 SDD27
SDD_28 285 SDD28
SDD_29 379 SDD29
SDD_30 378 SDD30
SDD_31 377 SDD31
SDD_32 276 SDD32
SDD_33 459 SDD33
SDD_34 372 SDD34
SDD_35 373 SDD35
SDD_36 460 SDD36
SDD_37 374 SDD37
SDD_38 461 SDD38
SDD_39 541 SDD39
SDD_40 281 SDD40
SDD_41 280 SDD41
SDD_42 177 SDD42
SDD_43 176 SDD43
SDD_44 175 SDD44
SDD_45 174 SDD45
SDD_46 62 SDD46
SDD_47 172 SDD47
SDD_48 464 SDD48
SDD_49 466 SDD49
SDD_50 380 SDD50
SDD_51 467 SDD51
SDD_52 381 SDD52
SDD_53 382 SDD53
SDD_54 469 SDD54
SDD_55 470 SDD55
SDD_56 186 SDD56
SDD_57 185 SDD57
SDD_58 184 SDD58
SDD_59 183 SDD59
SDD_60 182 SDD60
SDD_61 284 SDD61
SDD_62 180 SDD62
SDD_63 282 SDD63
SDD[12

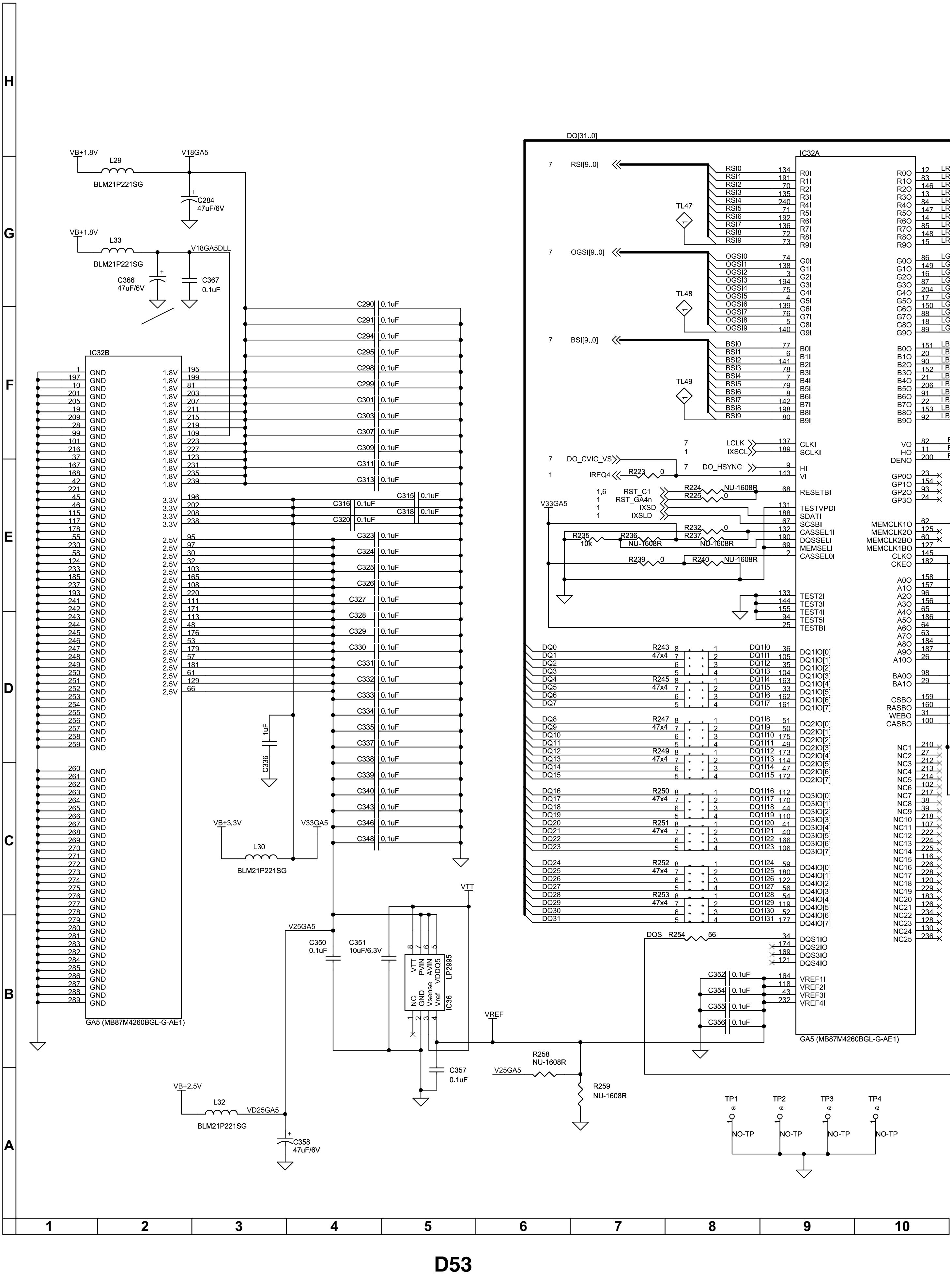

L28
NFE31P-BLM31PG121SN1
VB+3.3V
VCVSDRAM
C220
100uF/6.3V
KRAS
WE
DQM[7..0]
SDA[10..0]
R183
NU-1608R
R184
470
IC26
IC27
IC28
IC29
HY57V643220CT-7
SDA0
SDA1
SDA2
SDA3
SDA4
SDA5
SDA6
SDA7
SDA8
SDA9
SDA10
SD_BA0
SD_BA1
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10(AP)
BA0
BA1
CLK
CKE
/CS
/RAS
/CAS
/WE
VccQ
VssQ
Vcc
Vss
NC
DQM0
DQM1
DQM2
DQM3
DQM4
DQM5
DQM6
DQM7
SDD0
SDD31
SDD32
SDD63
SDD64
SDD95
SDD96
SDD127
C221
C222
C223
C224
C225
C226
C227
C228
C229
C230
C231
C232
C233
C234
C235
C236
C237
C238
C239
C240
C241
C242
C243
C244
1uF
0.1uF
SDD[127..0]
10
11
12
13
14
15
16
17
18
19

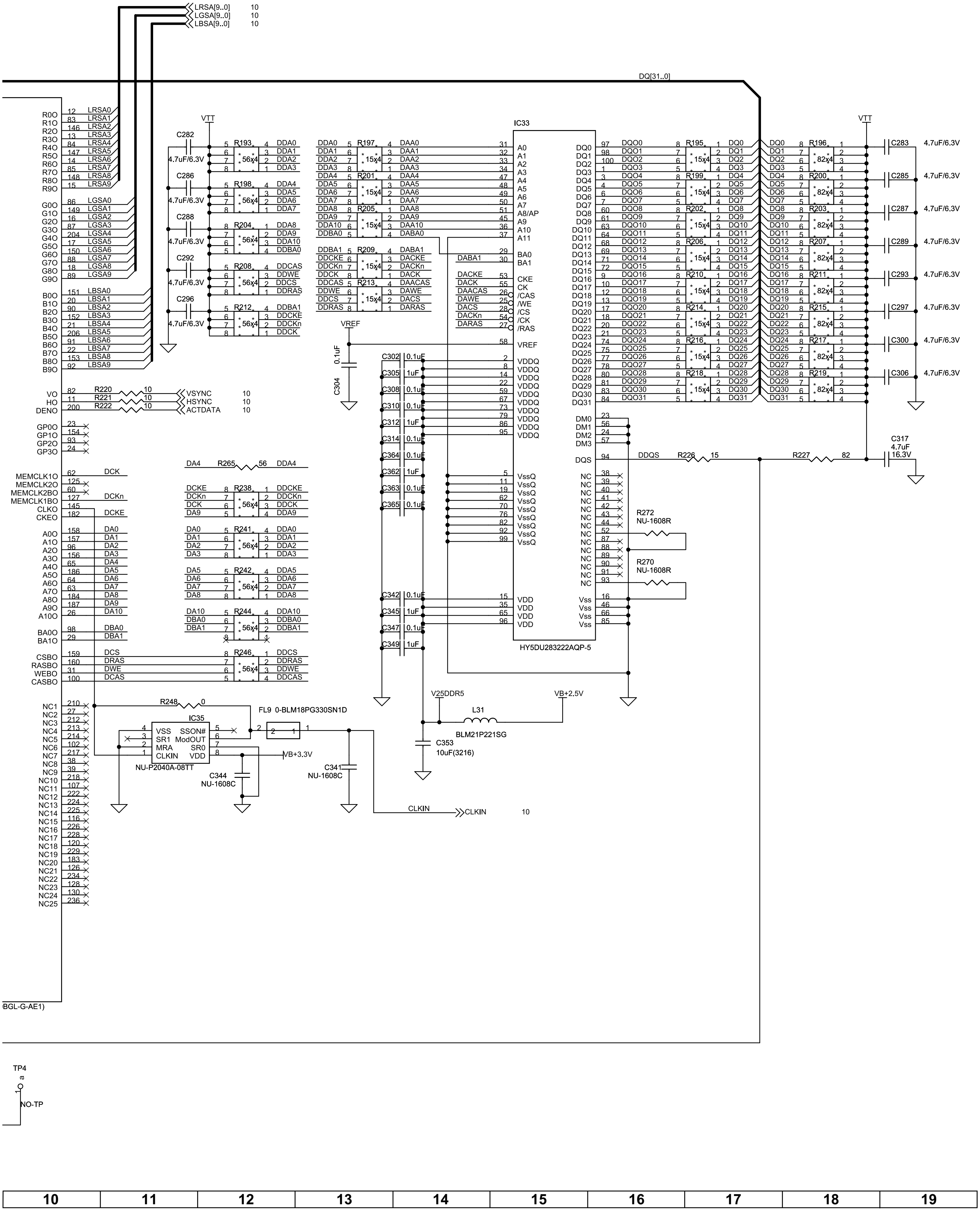
# ■PC I/F UNIT / PC-I/F-EINHEIT-7/10 (Ref. No. 8XXX → (IC25B=IC8025B))


IC25B
CVIC2
4,5 RI1A[7..0]
RI1A0 104 V0_RA0
RI1A1 213 V0_RA1
RI1A2 214 V0_RA2
RI1A3 315 V0_RA3
RI1A4 408 V0_RA4
RI1A5 493 V0_RA5
RI1A6 317 V0_RA6
RI1A7 318 V0_RA7
4,5 OGI1A[7..0]
OGI1A0 485 V0_GA0
OGI1A1 400 V0_GA1
OGI1A2 307 V0_GA2
OGI1A3 206 V0_GA3
OGI1A4 96 V0_GA4
OGI1A5 399 V0_GA5
OGI1A6 306 V0_GA6
OGI1A7 205 V0_GA7
4,5 BI1A[7..0]
BI1A0 404 V0_BA0
BI1A1 311 V0_BA1
BI1A2 488 V0_BA2
BI1A3 403 V0_BA3
BI1A4 310 V0_BA4
BI1A5 209 V0_BA5
BI1A6 100 V0_BA6
BI1A7 99 V0_BA7
4,5 RI1B[7..0]
RI1B0 103 V0_RB0
RI1B1 314 V0_RB1
RI1B2 407 V0_RB2
RI1B3 405 V0_RB3
RI1B4 312 V0_RB4
RI1B5 102 V0_RB5
RI1B6 210 V0_RB6
RI1B7 101 V0_RB7
4,5 OGI1B[7..0]
OGI1B0 398 V0_GB0
OGI1B1 305 V0_GB1
OGI1B2 204 V0_GB2
OGI1B3 95 V0_GB3
OGI1B4 304 V0_GB4
OGI1B5 203 V0_GB5
OGI1B6 94 V0_GB6
OGI1B7 93 V0_GB7
4,5 BI1B[7..0]
BI1B0 402 V0_BB0
BI1B1 309 V0_BB1
BI1B2 208 V0_BB2
BI1B3 401 V0_BB3
BI1B4 308 V0_BB4
BI1B5 207 V0_BB5
BI1B6 98 V0_BB6
BI1B7 97 V0_BB7
TL33
OPVDCLK 320 V0_PVDCLK
ONVDCLK 412 V0_NVDCLK
4,5 OVCLK 494 V0_VDCLK_I
5 DE 216 V0_VAL
3,4 PCH 105 V0_HSYNC
3,4 PCV 106 V0_VSYNC
R185 1K 215 V0_CSYNC
4 OV0_GSYN 316 V0_GSYNC
4 OV0_HSCVIC 107 V0_HSYNC2
409 V0_ACT
OPVCLK 113 V0_PVCLK
ONVCLK 221 V0_NVCLK
3 OVR[7..0]
OVR0 108 V1_RA0
OVR1 217 V1_RA1
OVR2 411 V1_RA2
OVR3 496 V1_RA3
OVR4 109 V1_RA4
OVR5 319 V1_RA5
OVR6 219 V1_RA6
OVR7 220 V1_RA7
3 OVG[7..0]
OVG0 10 V1_GA0
OVG1 11 V1_GA1
OVG2 126 V1_GA2
OVG3 233 V1_GA3
OVG4 332 V1_GA4
OVG5 234 V1_GA5
OVG6 333 V1_GA6
OVG7 424 V1_GA7
3 OVB[7..0]
OVB0 5 V1_BA0
OVB1 121 V1_BA1
OVB2 229 V1_BA2
OVB3 8 V1_BA3
OVB4 123 V1_BA4
OVB5 230 V1_BA5
OVB6 329 V1_BA6
OVB7 421 V1_BA7
1PVDCLK 321 V1_PVDCLK
1NVDCLK 413 V1_NVDCLK
3 OV1_VDCK 118 V1_VDCLK_I
3 OV_VAL 112 V1_VAL
3 OVH_IN 228 V1_HSYNC
3 OVV_IN 327 V1_VSYNC
328 V1_CSYNC
419 V1_GSYNC
120 V1_HSYNC2
3 OV1_ACT 111 V1_ACT
1PVCLK 115 V1_PVCLK
1NVCLK 223 V1_NVCLK
TL46
R187 0
R188 NU-1608R
R189 NU-1608R
117 V1_RB0
3 V1_RB1
4 V1_RB2
119 V1_RB3
226 V1_RB4
325 V1_RB5
326 V1_RB6
417 V1_RB7
12 V1_GB0
127 V1_GB1
13 V1_GB2
128 V1_GB3
235 V1_GB4
334 V1_GB5
425 V1_GB6
14 V1_GB7
9 V1_BB0
124 V1_BB1
231 V1_BB2
330 V1_BB3
125 V1_BB4
232 V1_BB5
331 V1_BB6
422 V1_BB7
OPVDCLK
ONVDCLK
OPVCLK
ONVCLK
1PVDCLK
1NVDCLK
1NVCLK
1PVCLK
DO_RA0 355 RSI0
DO_RA1 354 RSI1
DO_RA2 257 RSI2
DO_RA3 152 RSI3
DO_RA4 39 RSI4
DO_RA5 256 RSI5
DO_RA6 151 RSI6
DO_RA7 38 RSI7
DO_RA8 150 RSI8
DO_RA9 37 RSI9
RSI[9..0]
DO_GA0 446 OGSI0
DO_GA1 357 OGSI1
DO_GA2 445 OGSI2
DO_GA3 356 OGSI3
DO_GA4 259 OGSI4
DO_GA5 154 OGSI5
DO_GA6 41 OGSI6
DO_GA7 258 OGSI7
DO_GA8 153 OGSI8
DO_GA9 40 OGSI9
OGSI[9..0]
DO_BA0 448 BSI0
DO_BA1 359 BSI1
DO_BA2 262 BSI2
DO_BA3 358 BSI3
DO_BA4 261 BSI4
DO_BA5 156 BSI5
DO_BA6 43 BSI6
DO_BA7 260 BSI7
DO_BA8 155 BSI8
DO_BA9 42 BSI9
BSI[9..0]
DO_RB0 361
DO_RB1 264
DO_RB2 159
DO_RB3 449
DO_RB4 360
DO_RB5 263
DO_RB6 158
DO_RB7 45
DO_RB8 157
DO_RB9 44
DO_GB0 452
DO_GB1 363
DO_GB2 266
DO_GB3 161
DO_GB4 451
DO_GB5 362
DO_GB6 265
DO_GB7 160
DO_GB8 47
DO_GB9 46
DO_BB0 366
DO_BB1 365
DO_BB2 268
DO_BB3 163
DO_BB4 50
DO_BB5 364
DO_BB6 267
DO_BB7 162
DO_BB8 49
DO_BB9 48
TL34 TL35 TL36
DO_HSYNC 36 DO_HSYNC
DO_VSYNC 35 DO_CVIC_VS
DO_HDISP 149
TL37
DO_VDISP 254
DO_FEILD 148
DO_HSYNC 8
DO_CVIC_VS 8
V0_VDCLK_O 225
V0_PADCLK 114
V0_NADCLK 222
V0_PADRST 322
V0_NADRST 414
TL38
V0_CLP 218 OV0_CLP 4
V0_HSYNR 406 OV0_HSR 4
V0_HSYNF 313 OV0_HSF 4
V0_PDEN 410 OV0_PDEN 4
TL39
V1_VDCLK_O 227
V1_PADCLK 224
V1_NADCLK 324
V1_PADRST 415
V1_NADRST 499
TL40TL41 TL42
V1_CLP 110
V1_HSYNR 6
V1_HSYNF 7
V1_PDEN 122
TL43 TL44
BIASIN_VI 323
BIASOUT_VI 575
BIASIN_DO 253
BIASOUT_DO 351
LCLK 8
DCLK 146
LCLK 255
LCLKP 33
LCLKN 147
FL6
0-BLM18PG330SN1D
C274 NU-1608C
S0_D0 236
S0_D1 129
S0_D2 15
S0_D3 16
S1_D0 427
S1_D1 336
S1_D2 130
S1_D3 131
IPD 497
MCK_REF 212
PLL_S 487
PLL_TEST 397
RST_PLLn 1
VB+3.3V
MST 303
XTST 418
SMCK 500
XSM 518
IMODE 34
INITO 17
INITI 335
CPUS_0 132
CPUS_1 239
CPUS_2 238
CPUS_3 237
CCS_0 19
CCS_1 18
FL7
0-BLM18PG330SN1D
C276 NU-1608C
R192 0
FL8
0-BLM18PG330SN1D
C280 NU-1608C
VB+3.3V
C360 NU-1608C
IC31
5 SSON VSS 4
6 ModOUT FS0 3
7 SR0 XOUT 2
8 VDD XIN/CLK 1
NU-P2010A-08TT
H G F E D C B A
1 2 3 4 5 6 7 8 9 10

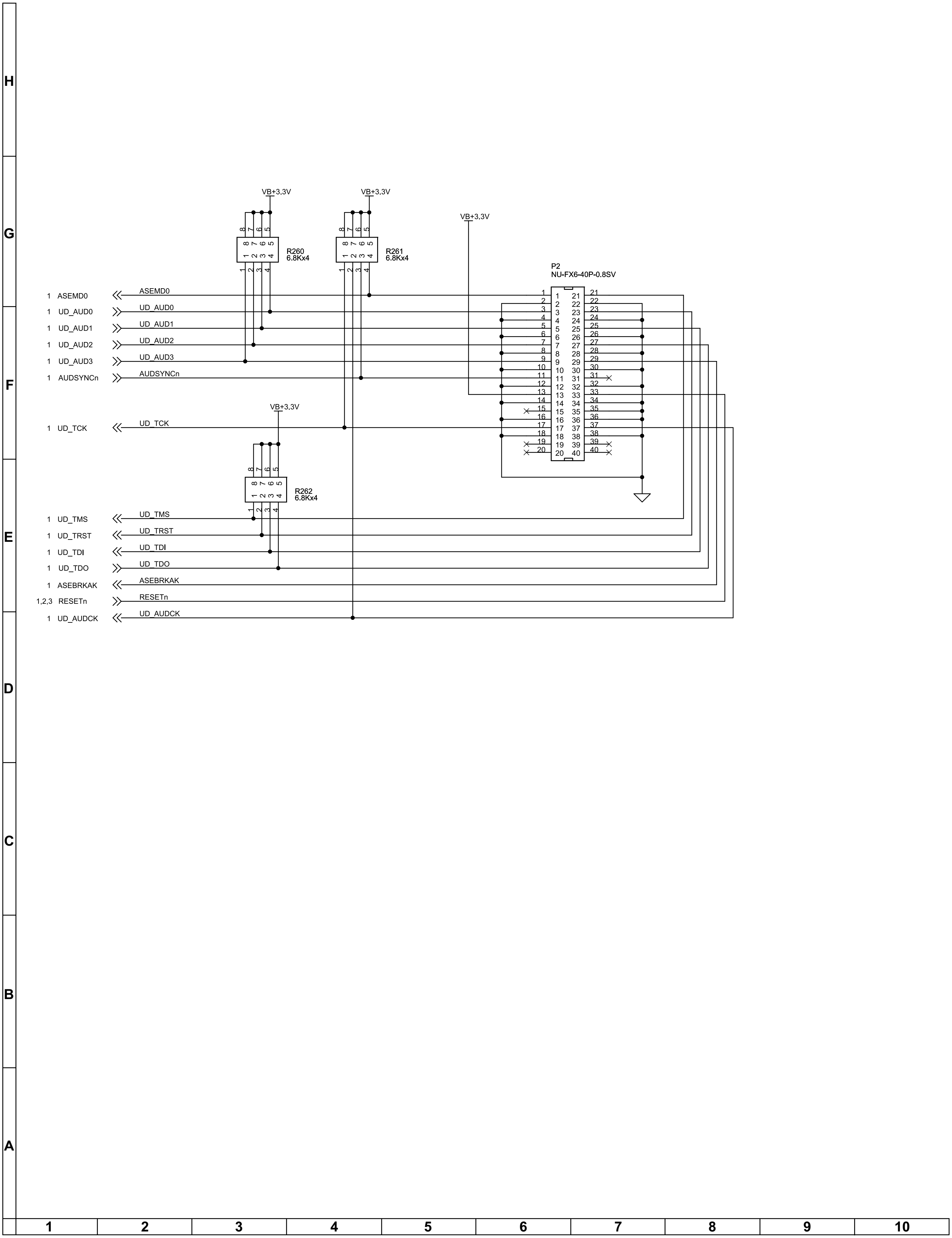

RSI[9..0] 8
OGSI[9..0] 8
BSI[9..0] 8
DO_HSYNC 8
IC25C
CVIC2
VSS 1 2 29 30 31 32 58 59 60 87 88 89 116 283 338 344 352 353 433 443 455 482 484 501 502 503 506 507 510 511 514 515 519 520 521 522 525 526 529 530 533 534 538 539 540 544 545 548 549 552 553 557 558 559 563 564 567 568 571 572 576
VDDL 504 505 508 509 512 513 516 517 523 524 527 528 531 532 535 536 542 543 546 547 550 551 554 555 561 562 565 566 569 570 573 574
VDDH 171 337 343 420 423 426 428 429 432 434 435 438 439 441 442 444 447 450 453 454 456 458 462 465 468 471 474 477 483 486 489 492 495 498 560
491 A_VDD
490 A_VSS
C245 1uF
C246 0.1uF
C247 0.1uF
C248 0.1uF
C249 1uF
C250 0.1uF
C251 0.1uF
C252 0.1uF
C253 0.1uF
C254 0.1uF
C255 1uF
C256 0.1uF
C257 0.1uF
C258 0.1uF
C259 1uF
C260 0.1uF
C261 0.1uF
C262 0.1uF
C263 0.1uF
C264 0.1uF
C265 0.1uF
C266 0.1uF
C267 0.1uF
C268 0.1uF
C269 0.1uF
C270 0.1uF
C271 0.1uF
VB+3.3V
C272 100uF/6.3V
R186 0
CVIC_AVDD
C273 1uF
TL45
V18CVIC
C275 10uF(3216)
D20 RB520S-30
VB+2.5V
IC30 PQ070XH02Z
VI VC GND TAB VO NC
C278 100uF/6.3V
R190 910(1%)
R191 2K(1%)
C279 150uF(PXA)/4V
X4
OUT VDC GND Cntl
DSO751SV(65.000M)
C277 0.1uF
R192 0
IC31
SSON ModOUT SR0 VDD VSS FS0 XOUT XIN/CLK
NU-P2010A-08TT
X5
DSO751SV(25.000M)
C281 0.1uF
10 11 12 13 14 15 16 17 18 19

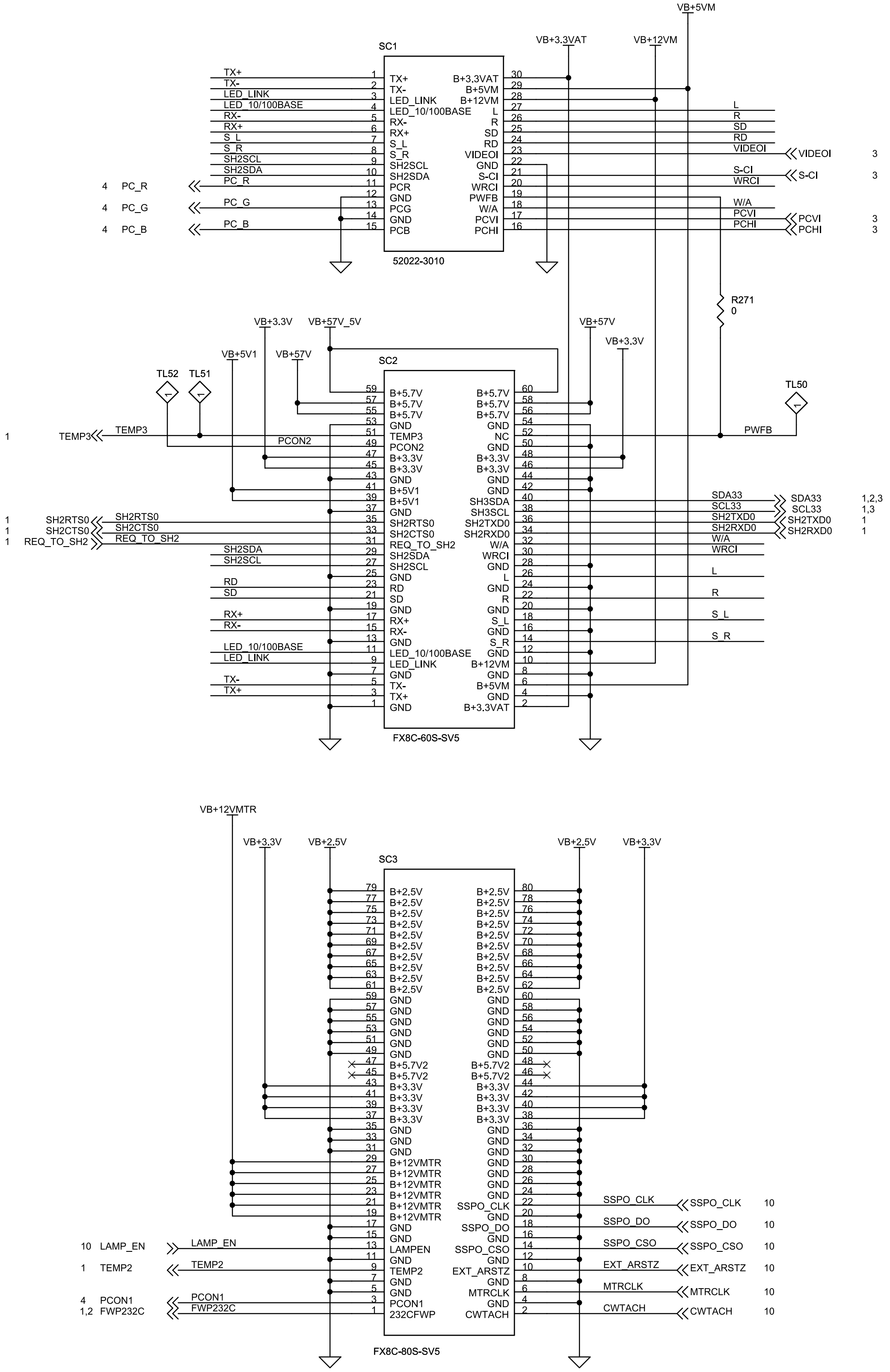
# ■PC I/F UNIT / PC-I/F-EINHEIT-8/10 (Ref. No. 8XXX → (IC32A=IC8032A))


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
VB+1.8V
L29
BLM21P221SG
V18GA5
C284
47uF/6V
VB+1.8V
L33
BLM21P221SG
V18GA5DLL
C366
47uF/6V
C367
0.1uF
IC32B
GND
1.8V
3.3V
2.5V
GA5 (MB87M4260BGL-G-AE1)
C290 0.1uF
C291 0.1uF
C294 0.1uF
C295 0.1uF
C298 0.1uF
C299 0.1uF
C301 0.1uF
C303 0.1uF
C307 0.1uF
C309 0.1uF
C311 0.1uF
C313 0.1uF
C315 0.1uF
C316 0.1uF
C318 0.1uF
C320 0.1uF
C323 0.1uF
C324 0.1uF
C325 0.1uF
C326 0.1uF
C327 0.1uF
C328 0.1uF
C329 0.1uF
C330 0.1uF
C331 0.1uF
C332 0.1uF
C333 0.1uF
C334 0.1uF
C335 0.1uF
C337 0.1uF
C338 0.1uF
C339 0.1uF
C340 0.1uF
C343 0.1uF
C346 0.1uF
C348 0.1uF
C336
1uF
VB+3.3V
V33GA5
L30
BLM21P221SG
V25GA5
C350
0.1uF
C351
10uF/6.3V
VTT
PVIN
AVIN
VDDQ5
NC
GND
Vsense
Vref
LP2995
IC36
C357
0.1uF
VREF
R258
NU-1608R
V25GA5
R259
NU-1608R
VB+2.5V
L32
BLM21P221SG
VD25GA5
C358
47uF/6V
DQ[31..0]
IC32A
RSI[9..0]
OGSI[9..0]
BSI[9..0]
TL47
TL48
TL49
R0I
R9I
G0I
G9I
B0I
B9I
R0O
R9O
G0O
G9O
B0O
B9O
LCLK
IXSCL
CLKI
SCLKI
VO
HO
DENO
DO_CVIC_VS
IREQ4
R223
0
DO_HSYNC
HI
VI
GP0O
GP1O
GP2O
GP3O
RST_C1
RST_GA4n
IXSD
IXSLD
R224
R225
NU-1608R
0
RESETBI
TESTVPDI
SDATI
SCSBI
CASSEL1I
DQSSELI
MEMSELI
CASSEL0I
V33GA5
R232
R235
10k
R236
NU-1608R
R237
NU-1608R
R239
0
R240
NU-1608R
MEMCLK1O
MEMCLK2O
MEMCLK2BO
MEMCLK1BO
CLKO
CKEO
A0O
A10O
BA0O
BA1O
CSBO
RASBO
WEBO
CASBO
TEST2I
TEST3I
TEST4I
TEST5I
TESTBI
R243 47x4
R245 47x4
R247 47x4
R249 47x4
R250 47x4
R251 47x4
R252 47x4
R253 47x4
DQ0
DQ31
DQ1I0
DQ1I31
DQ1IO[0]
DQ1IO[7]
DQ2IO[0]
DQ2IO[7]
DQ3IO[0]
DQ3IO[7]
DQ4IO[0]
DQ4IO[7]
NC1
NC25
DQS
R254
56
DQS1IO
DQS2IO
DQS3IO
DQS4IO
C352 0.1uF
C354 0.1uF
C355 0.1uF
C356 0.1uF
VREF1I
VREF2I
VREF3I
VREF4I
GA5 (MB87M4260BGL-G-AE1)
TP1
TP2
TP3
TP4
NO-TP

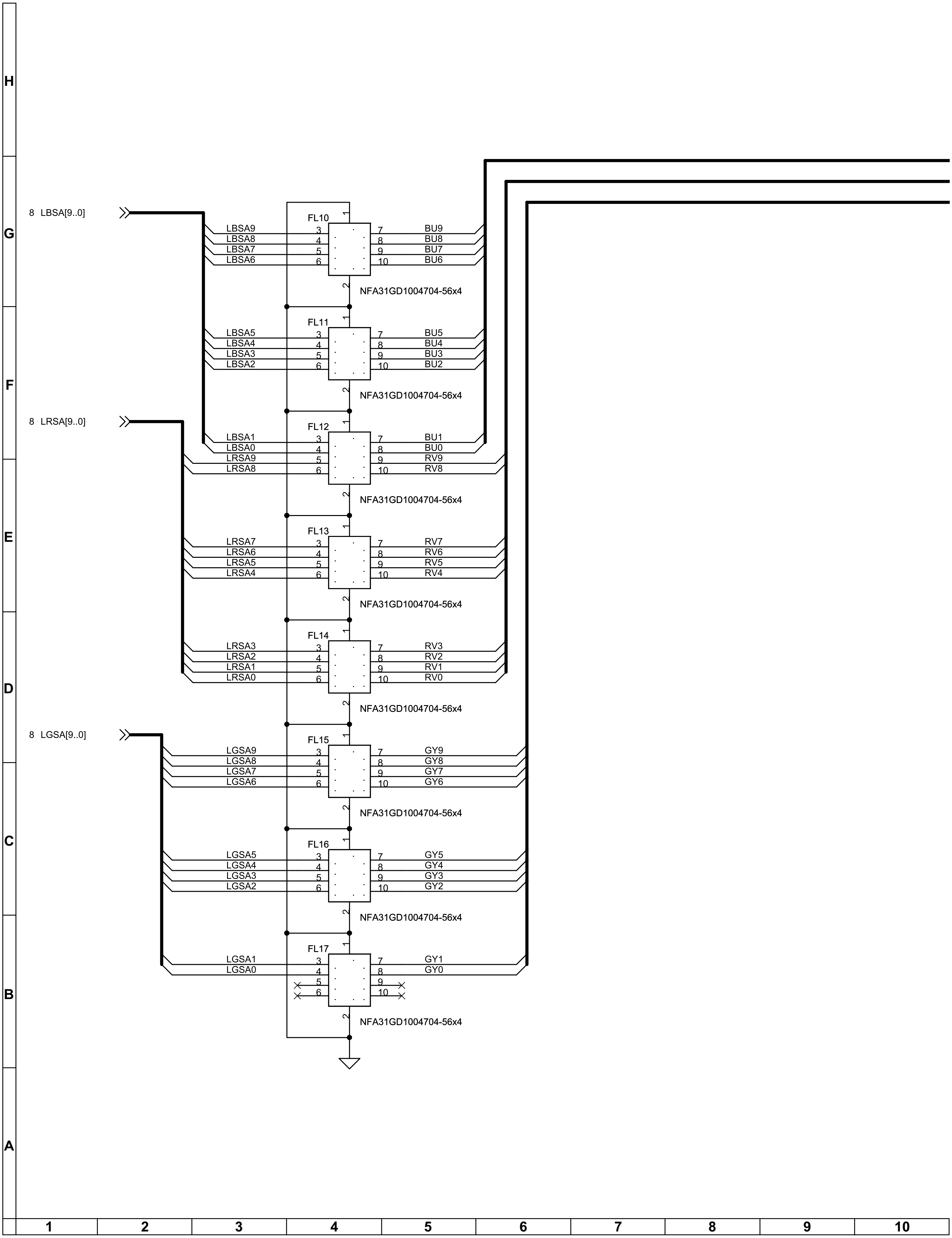

LRSA[9..0] 10
LGSA[9..0] 10
LBSA[9..0] 10
DQ[31..0]
IC33
HY5DU283222AQP-5
VTT
VREF
C282 4.7uF/6.3V
C286 4.7uF/6.3V
C288 4.7uF/6.3V
C292 4.7uF/6.3V
C296 4.7uF/6.3V
R193 56x4
R198 56x4
R204 56x4
R208 56x4
R212 56x4
R197 15x4
R201 15x4
R205 15x4
R209 15x4
R213 15x4
R195 15x4
R199 15x4
R202 15x4
R206 15x4
R210 15x4
R214 15x4
R216 15x4
R218 15x4
R196 82x4
R200 82x4
R203 82x4
R207 82x4
R211 82x4
R215 82x4
R217 82x4
R219 82x4
C283 4.7uF/6.3V
C285 4.7uF/6.3V
C287 4.7uF/6.3V
C289 4.7uF/6.3V
C293 4.7uF/6.3V
C297 4.7uF/6.3V
C300 4.7uF/6.3V
C306 4.7uF/6.3V
C317 4.7uF 16.3V
R226 15
R227 82
DDQS
R272 NU-1608R
R270 NU-1608R
C304 0.1uF
C302 0.1uF
C305 1uF
C308 0.1uF
C310 0.1uF
C312 1uF
C314 0.1uF
C364 0.1uF
C362 1uF
C363 0.1uF
C365 0.1uF
C342 0.1uF
C345 1uF
C347 0.1uF
C349 1uF
R220 10 VSYNC 10
R221 10 HSYNC 10
R222 10 ACTDATA 10
R265 56
R238 56x4
R241 56x4
R242 56x4
R244 56x4
R246 56x4
R248 0
IC35
NU-P2040A-08TT
VSS SSON#
SR1 ModOUT
MRA SR0
CLKIN VDD
FL9 0-BLM18PG330SN1D
C344 NU-1608C
C341 NU-1608C
VB+3.3V
CLKIN CLKIN 10
V25DDR5
VB+2.5V
L31 BLM21P221SG
C353 10uF(3216)
(BGL-G-AE1)
TP4
NO-TP
10
11
12
13
14
15
16
17
18
19

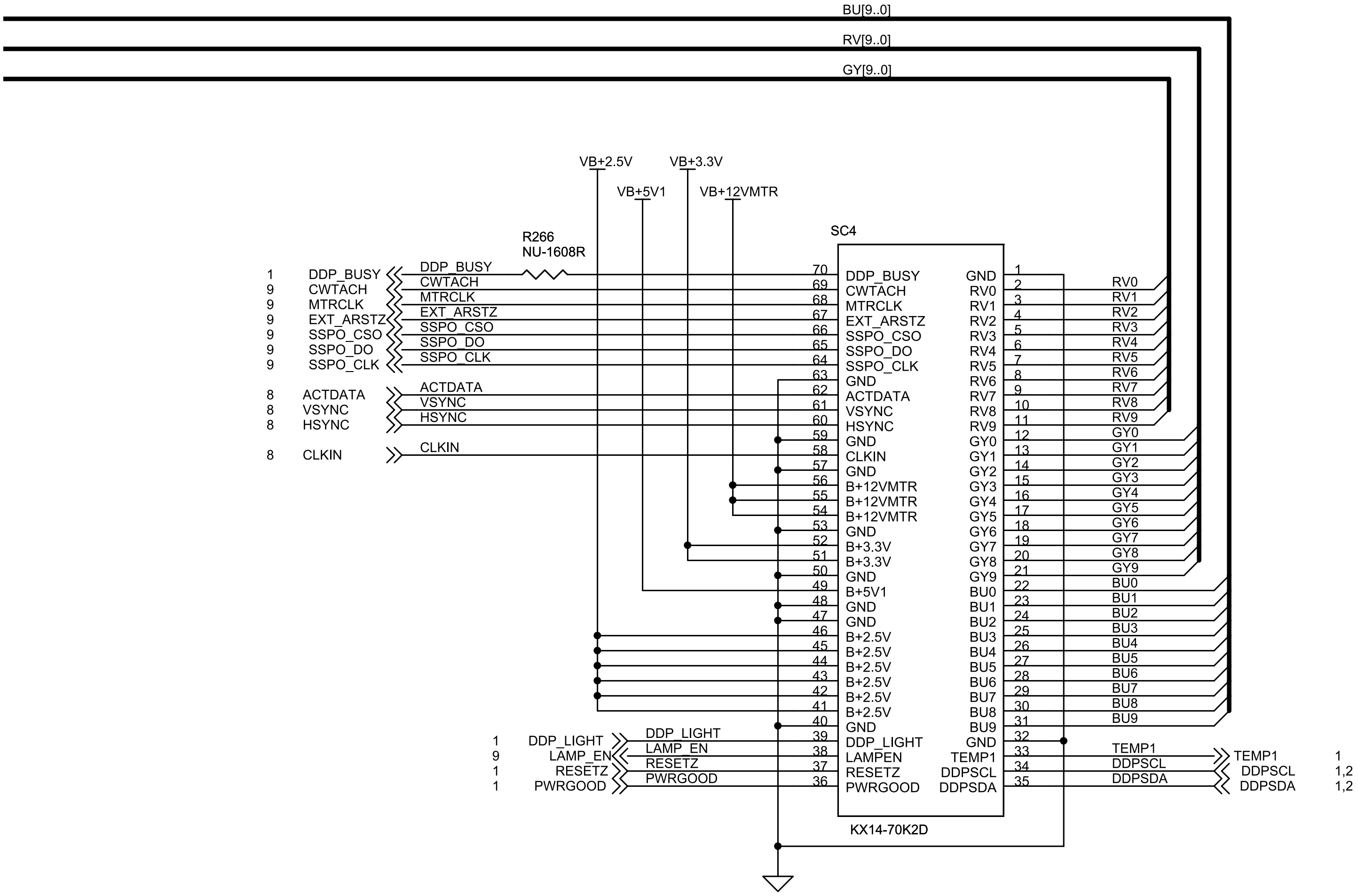
# ■PC I/F UNIT / PC-I/F-EINHEIT-9/10 (Ref. No. 8XXX → (R260=R8260))


VB+3,3V
R260
6.8Kx4
VB+3,3V
R261
6.8Kx4
VB+3,3V
P2
NU-FX6-40P-0.8SV
1 ASEMD0
ASEMD0
1 UD_AUD0
UD_AUD0
1 UD_AUD1
UD_AUD1
1 UD_AUD2
UD_AUD2
1 UD_AUD3
UD_AUD3
1 AUDSYNCn
AUDSYNCn
VB+3,3V
1 UD_TCK
UD_TCK
R262
6.8Kx4
1 UD_TMS
UD_TMS
1 UD_TRST
UD_TRST
1 UD_TDI
UD_TDI
1 UD_TDO
UD_TDO
1 ASEBRKAK
ASEBRKAK
1,2,3 RESETn
RESETn
1 UD_AUDCK
UD_AUDCK
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

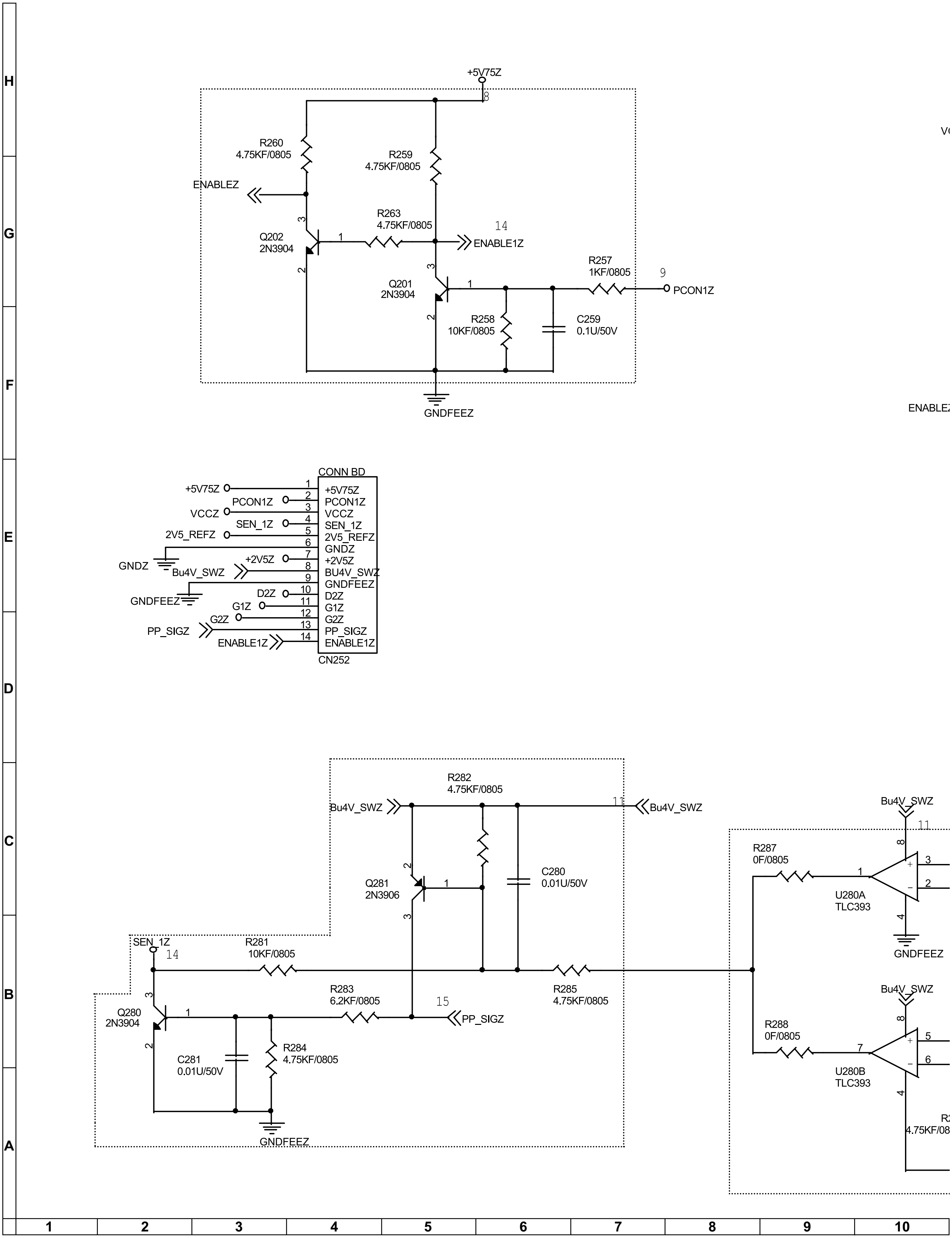

SC1
52022-3010
1 TX+
2 TX-
3 LED_LINK
4 LED_10/100BASE
5 RX-
6 RX+
7 S_L
8 S_R
9 SH2SCL
10 SH2SDA
11 PCR
12 GND
13 PCG
14 GND
15 PCB
30 B+3.3VAT
29 B+5VM
28 B+12VM
27 L
26 R
25 SD
24 RD
23 VIDEOI
22 GND
21 S-CI
20 WRCI
19 PWFB
18 W/A
17 PCVI
16 PCHI
VB+3.3VAT
VB+12VM
VB+5VM
4 PC_R
4 PC_G
4 PC_B
VIDEOI 3
S-CI 3
PCVI 3
PCHI 3
R271
0
SC2
FX8C-60S-SV5
VB+3.3V
VB+57V_5V
VB+5V1
VB+57V
VB+3.3V
TL52
TL51
TL50
1 TEMP3
PCON2
PWFB
59 B+5.7V
57 B+5.7V
55 B+5.7V
53 GND
51 TEMP3
49 PCON2
47 B+3.3V
45 B+3.3V
43 GND
41 B+5V1
39 B+5V1
37 GND
35 SH2RTS0
33 SH2CTS0
31 REQ_TO_SH2
29 SH2SDA
27 SH2SCL
25 GND
23 RD
21 SD
19 GND
17 RX+
15 RX-
13 GND
11 LED_10/100BASE
9 LED_LINK
7 GND
5 TX-
3 TX+
1 GND
60 B+5.7V
58 B+5.7V
56 B+5.7V
54 GND
52 NC
50 GND
48 B+3.3V
46 B+3.3V
44 GND
42 GND
40 SH3SDA
38 SH3SCL
36 SH2TXD0
34 SH2RXD0
32 W/A
30 WRCI
28 GND
26 L
24 GND
22 R
20 GND
18 S_L
16 GND
14 S_R
12 GND
10 B+12VM
8 GND
6 B+5VM
4 GND
2 B+3.3VAT
1 SH2RTS0
1 SH2CTS0
1 REQ_TO_SH2
SDA33 1,2,3
SCL33 1,3
SH2TXD0 1
SH2RXD0 1
SC3
FX8C-80S-SV5
VB+12VMTR
VB+3.3V
VB+2.5V
VB+2.5V
VB+3.3V
79–61 B+2.5V
80–62 B+2.5V
59–49 GND
60–50 GND
47 B+5.7V2
45 B+5.7V2
48 B+5.7V2
46 B+5.7V2
43–37 B+3.3V
44–38 B+3.3V
35–31 GND
36–24 GND
29–19 B+12VMTR
17 GND
15 GND
13 LAMPEN
11 GND
9 TEMP2
7 GND
5 GND
3 PCON1
1 232CFWP
22 SSPO_CLK
20 GND
18 SSPO_DO
16 GND
14 SSPO_CSO
12 GND
10 EXT_ARSTZ
8 GND
6 MTRCLK
4 GND
2 CWTACH
10 LAMP_EN
1 TEMP2
4 PCON1
1,2 FWP232C
SSPO_CLK 10
SSPO_DO 10
SSPO_CSO 10
EXT_ARSTZ 10
MTRCLK 10
CWTACH 10

## ■PC I/F UNIT / PC-I/F-EINHEIT-10/10 (Ref. No. 8XXX → (R266=R8266))

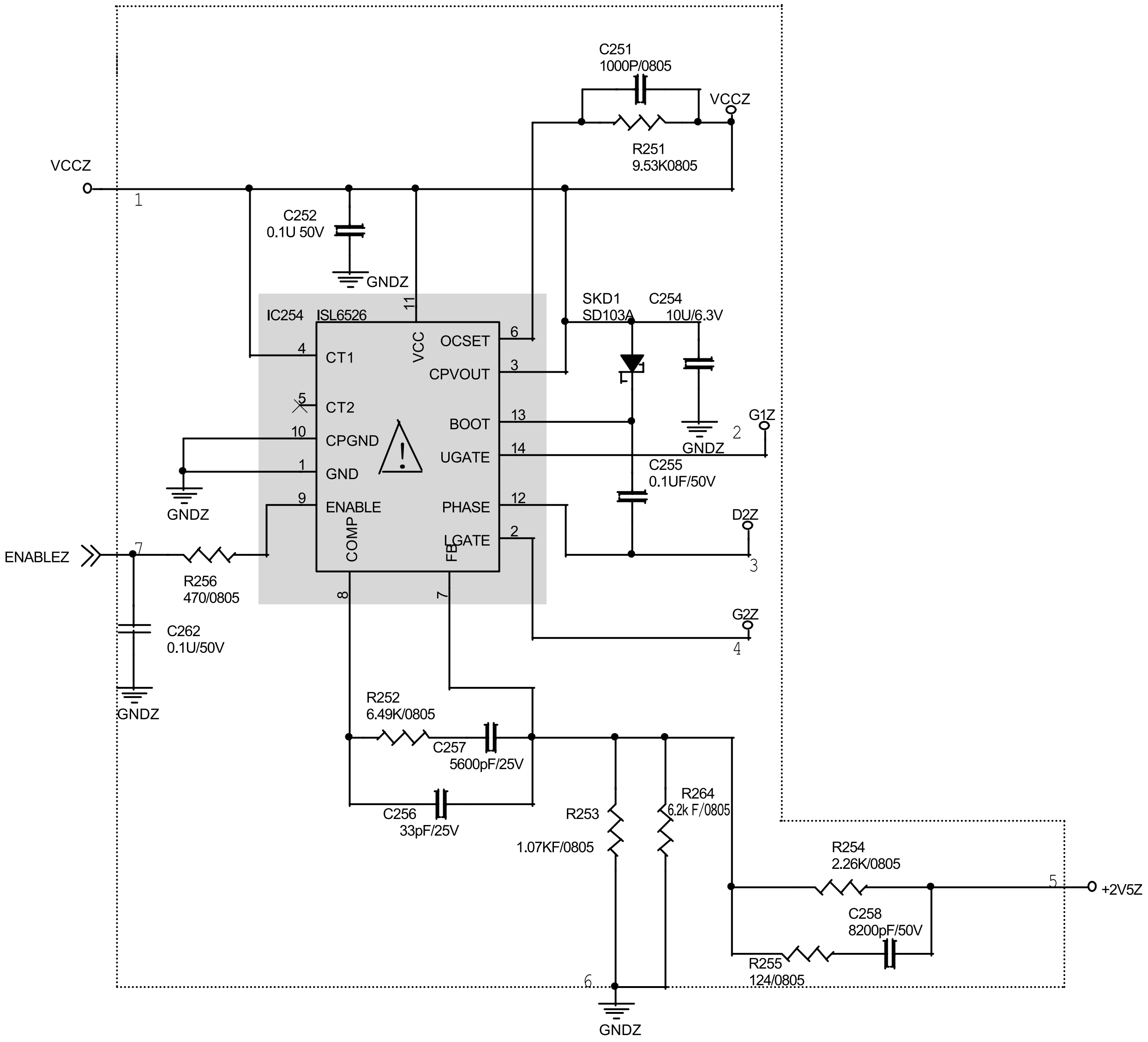

H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
8 LBSA[9..0]
8 LRSA[9..0]
8 LGSA[9..0]
FL10
FL11
FL12
FL13
FL14
FL15
FL16
FL17
NFA31GD1004704-56x4
LBSA9
LBSA8
LBSA7
LBSA6
LBSA5
LBSA4
LBSA3
LBSA2
LBSA1
LBSA0
LRSA9
LRSA8
LRSA7
LRSA6
LRSA5
LRSA4
LRSA3
LRSA2
LRSA1
LRSA0
LGSA9
LGSA8
LGSA7
LGSA6
LGSA5
LGSA4
LGSA3
LGSA2
LGSA1
LGSA0
BU9
BU8
BU7
BU6
BU5
BU4
BU3
BU2
BU1
BU0
RV9
RV8
RV7
RV6
RV5
RV4
RV3
RV2
RV1
RV0
GY9
GY8
GY7
GY6
GY5
GY4
GY3
GY2
GY1
GY0


BU[9..0]
RV[9..0]
GY[9..0]
VB+2.5V
VB+3.3V
VB+5V1
VB+12VMTR
R266
NU-1608R
SC4
KX14-70K2D
1 DDP_BUSY
9 CWTACH
9 MTRCLK
9 EXT_ARSTZ
9 SSPO_CSO
9 SSPO_DO
9 SSPO_CLK
8 ACTDATA
8 VSYNC
8 HSYNC
8 CLKIN
DDP_BUSY
CWTACH
MTRCLK
EXT_ARSTZ
SSPO_CSO
SSPO_DO
SSPO_CLK
ACTDATA
VSYNC
HSYNC
CLKIN
70 DDP_BUSY
69 CWTACH
68 MTRCLK
67 EXT_ARSTZ
66 SSPO_CSO
65 SSPO_DO
64 SSPO_CLK
63 GND
62 ACTDATA
61 VSYNC
60 HSYNC
59 GND
58 CLKIN
57 GND
56 B+12VMTR
55 B+12VMTR
54 B+12VMTR
53 GND
52 B+3.3V
51 B+3.3V
50 GND
49 B+5V1
48 GND
47 GND
46 B+2.5V
45 B+2.5V
44 B+2.5V
43 B+2.5V
42 B+2.5V
41 B+2.5V
40 GND
39 DDP_LIGHT
38 LAMPEN
37 RESETZ
36 PWRGOOD
GND 1
RV0 2
RV1 3
RV2 4
RV3 5
RV4 6
RV5 7
RV6 8
RV7 9
RV8 10
RV9 11
GY0 12
GY1 13
GY2 14
GY3 15
GY4 16
GY5 17
GY6 18
GY7 19
GY8 20
GY9 21
BU0 22
BU1 23
BU2 24
BU3 25
BU4 26
BU5 27
BU6 28
BU7 29
BU8 30
BU9 31
GND 32
TEMP1 33
DDPSCL 34
DDPSDA 35
RV0
RV1
RV2
RV3
RV4
RV5
RV6
RV7
RV8
RV9
GY0
GY1
GY2
GY3
GY4
GY5
GY6
GY7
GY8
GY9
BU0
BU1
BU2
BU3
BU4
BU5
BU6
BU7
BU8
BU9
TEMP1
DDPSCL
DDPSDA
TEMP1 1
DDPSCL 1,2
DDPSDA 1,2
1 DDP_LIGHT
9 LAMP_EN
1 RESETZ
1 PWRGOOD
DDP_LIGHT
LAMP_EN
RESETZ
PWRGOOD

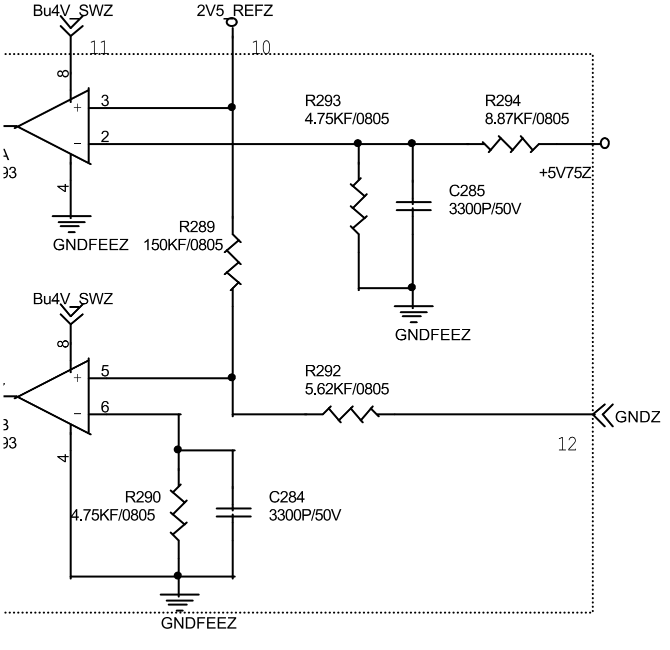
## ■LVPS CONTROL UNIT / LVPS-STEUEREINHEIT



+5V75Z
8
R260
4.75KF/0805
R259
4.75KF/0805
ENABLEZ
R263
4.75KF/0805
14
Q202
2N3904
ENABLE1Z
R257
1KF/0805
9
Q201
2N3904
PCON1Z
R258
10KF/0805
C259
0.1U/50V
GNDFEEZ
CONN BD
+5V75Z
PCON1Z
VCCZ
SEN_1Z
2V5_REFZ
GNDZ
+2V5Z
BU4V_SWZ
Bu4V_SWZ
GNDFEEZ
D2Z
G1Z
G2Z
PP_SIGZ
ENABLE1Z
CN252
1
2
3
4
5
6
7
8
9
10
11
12
13
14
R282
4.75KF/0805
Bu4V_SWZ
11
Q281
2N3906
C280
0.01U/50V
SEN_1Z
14
R281
10KF/0805
R283
6.2KF/0805
15
PP_SIGZ
R285
4.75KF/0805
Q280
2N3904
C281
0.01U/50V
R284
4.75KF/0805
GNDFEEZ
R287
0F/0805
U280A
TLC393
R288
0F/0805
U280B
TLC393
4.75KF/08
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10



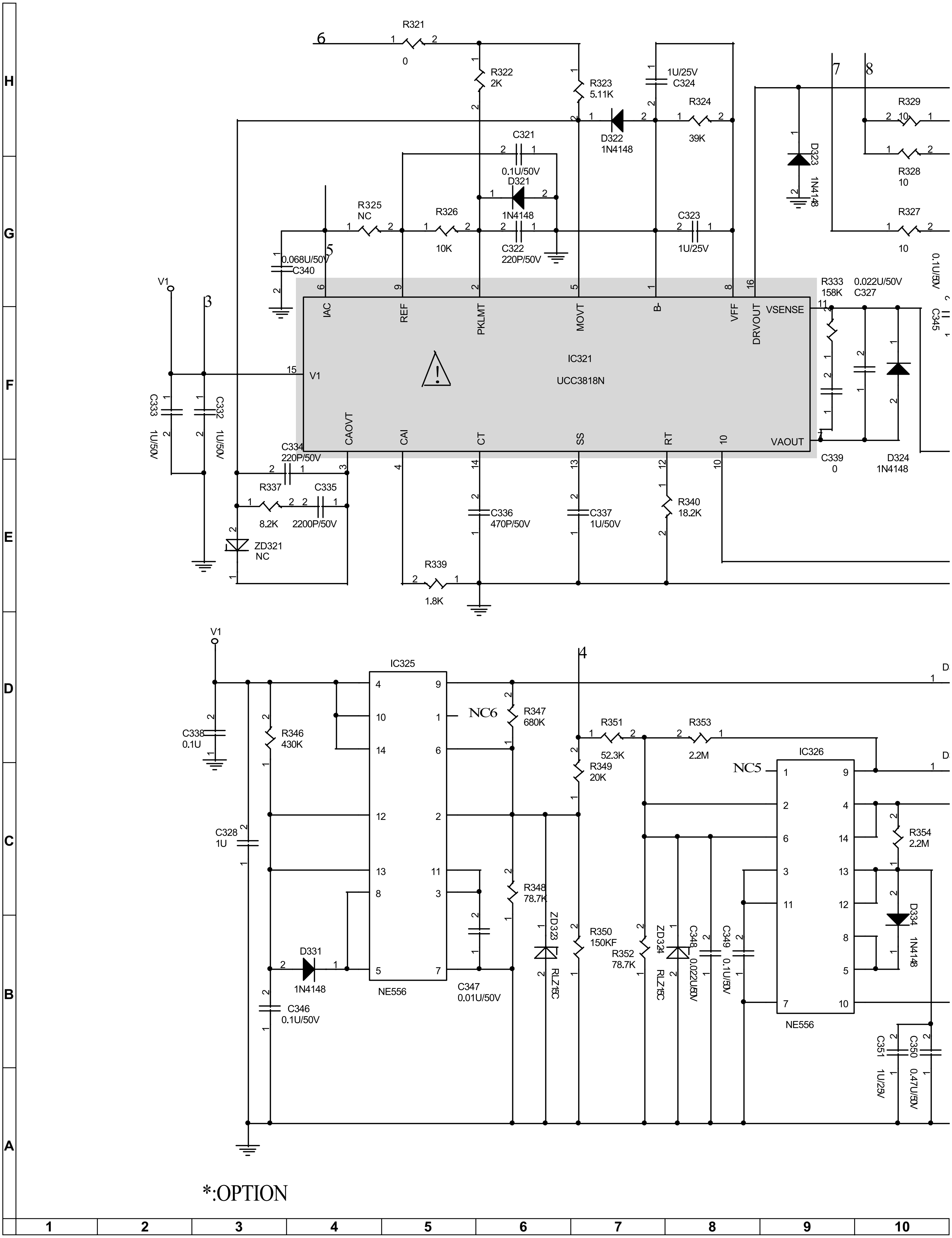
C251
1000P/0805
VCCZ
R251
9.53K0805
VCCZ
1
C252
0.1U 50V
GNDZ
IC254
ISL6526
11
VCC
OCSET
6
CPVOUT
3
4
CT1
5
CT2
10
CPGND
1
GND
9
ENABLE
BOOT
13
UGATE
14
PHASE
12
LGATE
2
COMP
FB
8
7
SKD1
SD103A
C254
10U/6.3V
GNDZ
G1Z
2
C255
0.1UF/50V
D2Z
3
G2Z
4
GNDZ
ENABLEZ
7
R256
470/0805
C262
0.1U/50V
GNDZ
R252
6.49K/0805
C257
5600pF/25V
C256
33pF/25V
R253
1.07KF/0805
R264
6.2k F/0805
R254
2.26K/0805
5
+2V5Z
C258
8200pF/50V
R255
124/0805
6
GNDZ

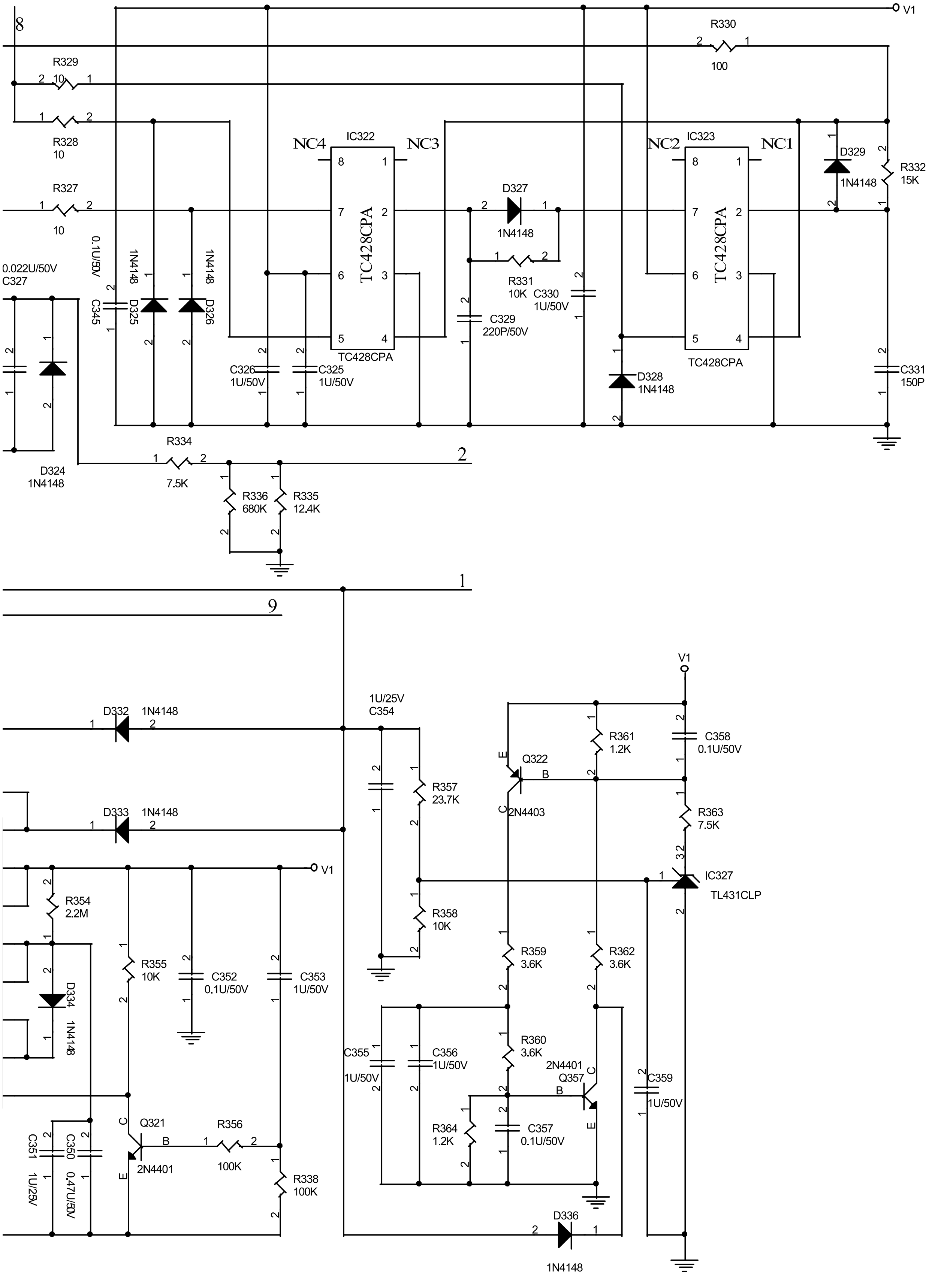


Bu4V_SWZ
11
2V5_REFZ
10
8
3
2
+
−
A
93
4
GNDFEEZ
R293
4.75KF/0805
R294
8.87KF/0805
+5V75Z
C285
3300P/50V
R289
150KF/0805
GNDFEEZ
Bu4V_SWZ
8
5
6
+
−
B
93
4
R292
5.62KF/0805
GNDZ
12
R290
4.75KF/0805
C284
3300P/50V
GNDFEEZ

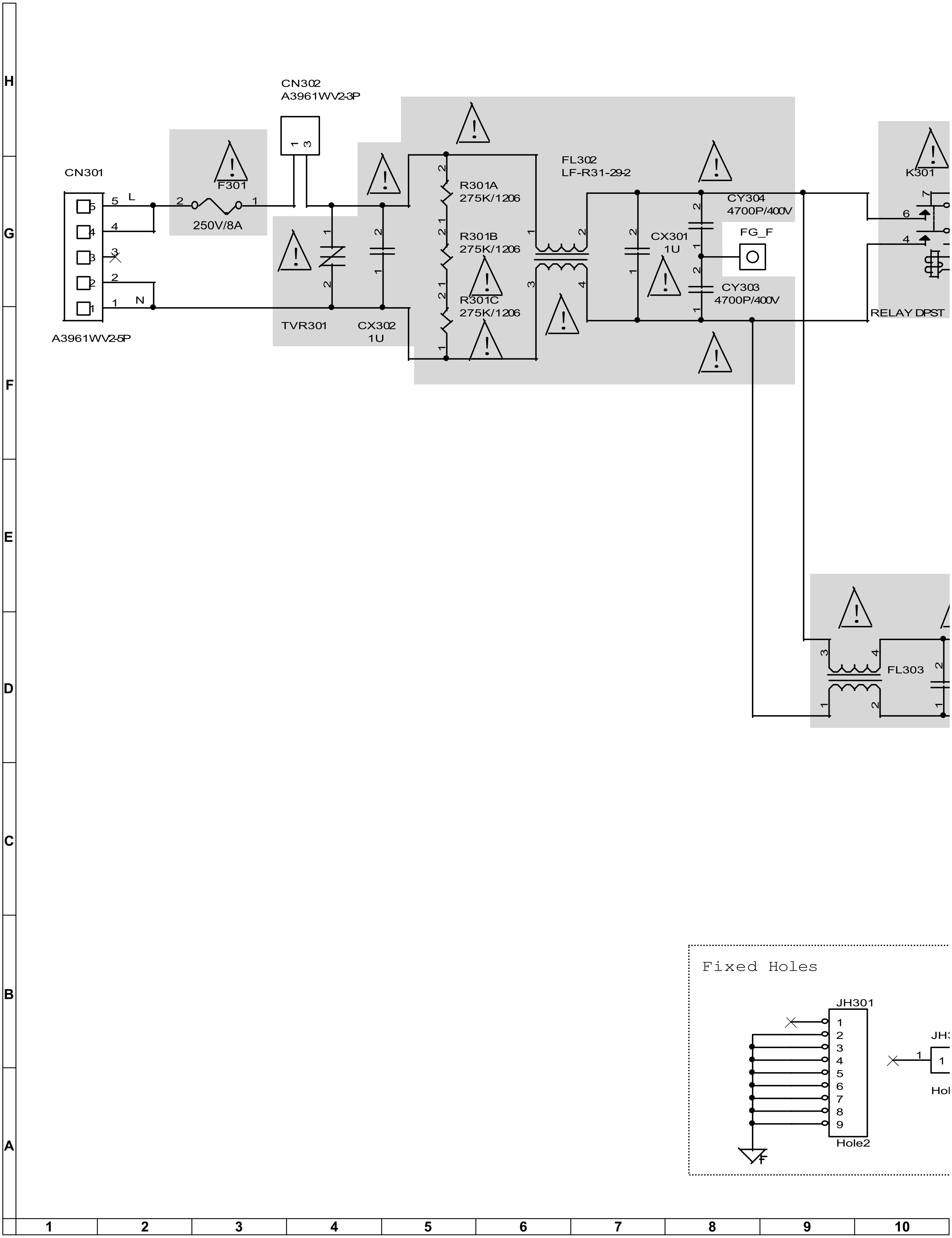
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** |

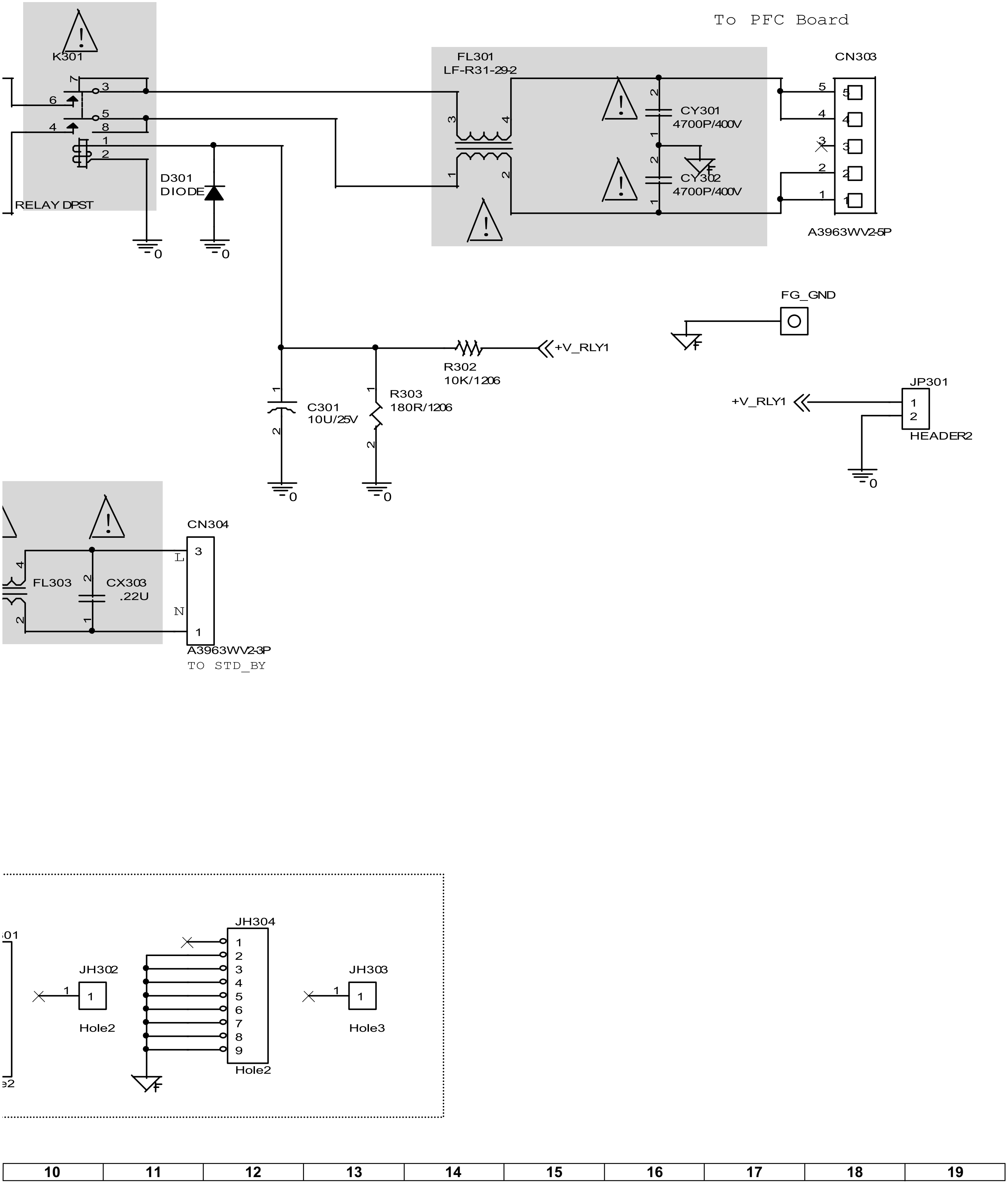
# ■PFC CONTROL UNIT / PFC-STEUEREINHEIT


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
6
R321
0
R322
2K
R323
5.11K
1U/25V
C324
R324
39K
D322
1N4148
C321
0.1U/50V
D321
1N4148
R325
NC
R326
10K
C322
220P/50V
C323
1U/25V
0.068U/50V
C340
5
7
8
D323
1N4148
R329
10
R328
10
R327
10
0.1U/50V
C345
V1
3
IAC
REF
PKLMT
MOVT
B-
VFF
DRVOUT
VSENSE
R333
158K
0.022U/50V
C327
IC321
UCC3818N
V1
C333
1U/50V
C332
1U/50V
CAOVT
CAI
CT
SS
RT
VAOUT
C339
0
D324
1N4148
C334
220P/50V
R337
8.2K
C335
2200P/50V
ZD321
NC
C336
470P/50V
C337
1U/50V
R340
18.2K
R339
1.8K
V1
IC325
NE556
4
C338
0.1U
R346
430K
NC6
R347
680K
R351
52.3K
R353
2.2M
IC326
NE556
NC5
R349
20K
R354
2.2M
C328
1U
R348
78.7K
ZD323
RLZ15C
R350
150KF
R352
78.7K
ZD324
RLZ15C
C348
0.022U/50V
C349
0.1U/50V
D334
1N4148
D331
1N4148
C346
0.1U/50V
C347
0.01U/50V
C351
1U/25V
C350
0.47U/50V
D
*:OPTION

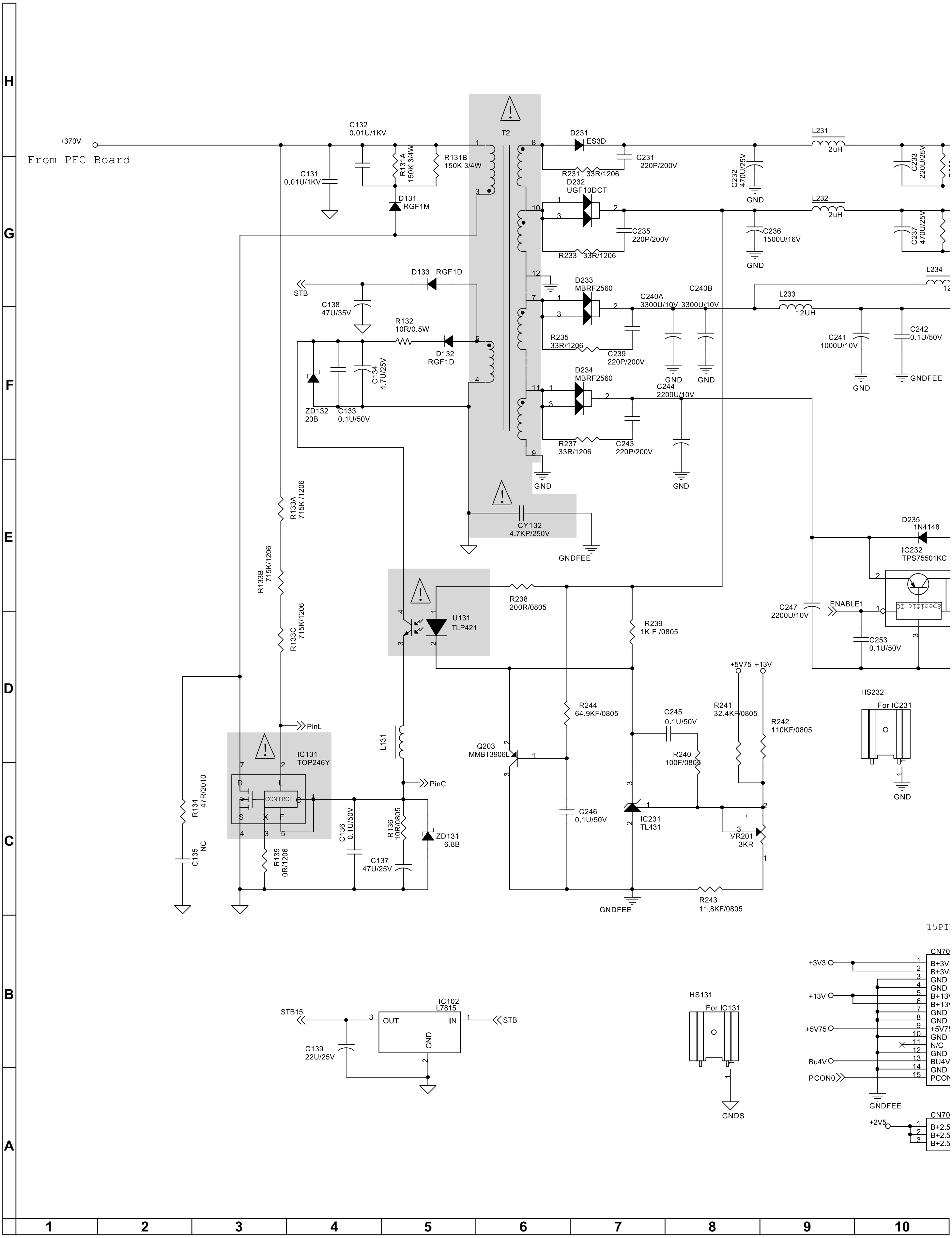

V1
R330
100
R329
10
R328
10
R327
10
8
NC4
IC322
NC3
TC428CPA
NC2
IC323
NC1
D329
1N4148
R332
15K
D327
1N4148
R331
10K
C330
1U/50V
C329
220P/50V
C326
1U/50V
C325
1U/50V
D328
1N4148
C331
150P
0.022U/50V
C327
0.1U/50V
C345
1N4148
D325
D326
D324
1N4148
R334
7.5K
2
R336
680K
R335
12.4K
1
9
D332
1N4148
D333
1N4148
1U/25V
C354
R357
23.7K
R358
10K
Q322
2N4403
R361
1.2K
C358
0.1U/50V
R363
7.5K
IC327
TL431CLP
R354
2.2M
D334
1N4148
R355
10K
C352
0.1U/50V
C353
1U/50V
R359
3.6K
R362
3.6K
R360
3.6K
C355
1U/50V
C356
1U/50V
2N4401
Q357
R364
1.2K
C357
0.1U/50V
C359
1U/50V
C351
1U/25V
C350
0.47U/50V
Q321
2N4401
R356
100K
R338
100K
D336
1N4148
B
C
E
10
11
12
13
14
15
16
17
18
19

# ■FILTER UNIT / FILTEREINHEIT

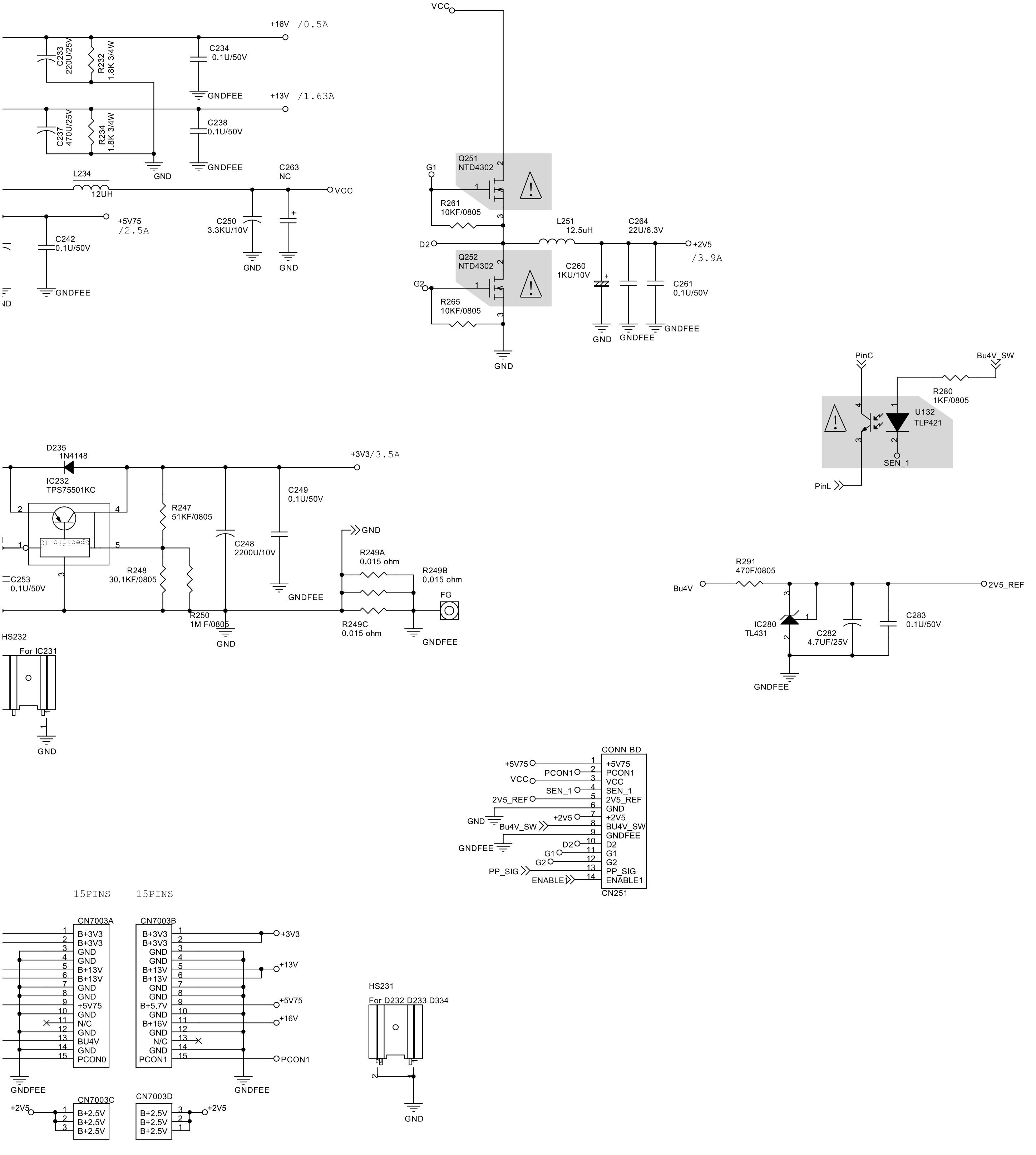

H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
CN301
A3961WV2-5P
5
4
3
2
1
L
N
F301
250V/8A
CN302
A3961WV2-3P
1 3
TVR301
CX302
1U
R301A
275K/1206
R301B
275K/1206
R301C
275K/1206
FL302
LF-R31-29-2
CX301
1U
CY304
4700P/400V
CY303
4700P/400V
FG_F
K301
RELAY DPST
6
4
FL303
Fixed Holes
JH301
Hole2
1
2
3
4
5
6
7
8
9
JH
Hol
F


To PFC Board
K301
RELAY DPST
7
3
6
5
4
8
1
2
0
D301
DIODE
0
FL301
LF-R31-29-2
3
4
1
2
CY301
4700P/400V
CY302
4700P/400V
CN303
5
4
3
2
1
A3963WV2-5P
FG_GND
R302
10K/1206
+V_RLY1
C301
10U/25V
R303
180R/1206
0
0
JP301
1
2
HEADER2
+V_RLY1
0
CN304
3
L
N
1
A3963WV2-3P
TO STD_BY
FL303
4
2
CX303
.22U
JH304
1
2
3
4
5
6
7
8
9
Hole2
JH302
1
Hole2
JH303
1
Hole3
10
11
12
13
14
15
16
17
18
19

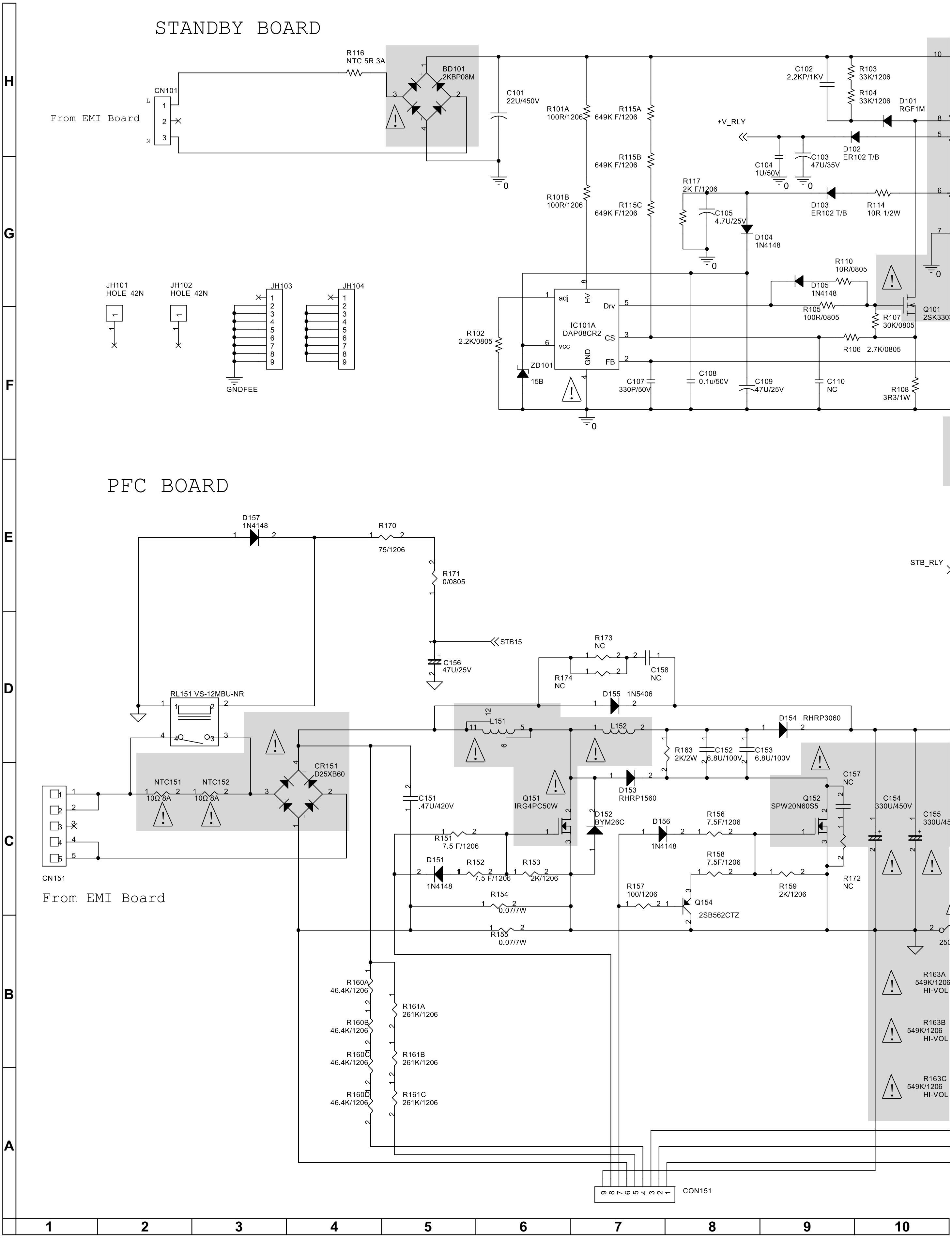
# ■POWER UNIT / STROMVERSORGUNGSEINHEIT-1/2

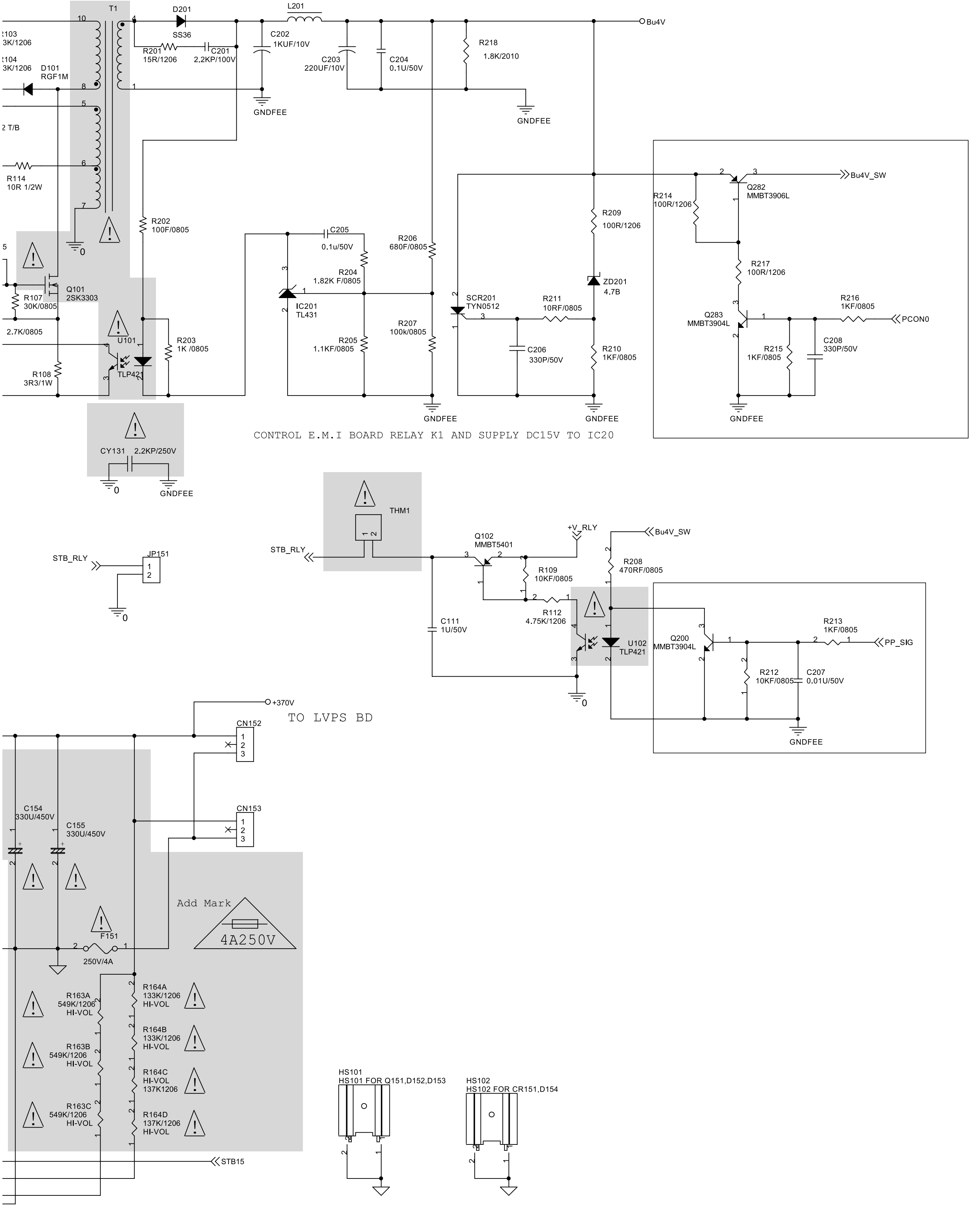


+370V
From PFC Board
C132
0.01U/1KV
C131
0.01U/1KV
R131A
150K 3/4W
R131B
150K 3/4W
D131
RGF1M
T2
D231
ES3D
C231
220P/200V
R231 33R/1206
D232
UGF10DCT
C235
220P/200V
R233 33R/1206
C232
470U/25V
GND
L231
2uH
C233
220U/25V
L232
2uH
C236
1500U/16V
C237
470U/25V
L234
D133 RGF1D
STB
C138
47U/35V
R132
10R/0.5W
D132
RGF1D
C134
4.7U/25V
ZD132
20B
C133
0.1U/50V
D233
MBRF2560
C240A
3300U/10V
C240B
3300U/10V
L233
12UH
R235
33R/1206
C239
220P/200V
C241
1000U/10V
C242
0.1U/50V
GNDFEE
D234
MBRF2560
C244
2200U/10V
R237
33R/1206
C243
220P/200V
CY132
4.7KP/250V
R133A
715K /1206
R133B
715K/1206
R133C
715K/1206
U131
TLP421
R238
200R/0805
R239
1K F /0805
D235
1N4148
IC232
TPS75501KC
ENABLE1
C247
2200U/10V
C253
0.1U/50V
Specific IC
+5V75 +13V
HS232
For IC231
PinL
PinC
L131
IC131
TOP246Y
CONTROL
D L C S X F
R134
47R/2010
C135
NC
R135
0R/1206
C136
0.1U/50V
R136
10R/0805
C137
47U/25V
ZD131
6.8B
Q203
MMBT3906L
R244
64.9KF/0805
C245
0.1U/50V
R240
100F/0805
R241
32.4KF/0805
R242
110KF/0805
C246
0.1U/50V
IC231
TL431
VR201
3KR
R243
11.8KF/0805
15PI
CN70
+3V3
+13V
+5V75
Bu4V
PCON0
B+3V
GND
B+13V
+5V7
N/C
BU4V
PCON
+2V5
B+2.5
STB15
IC102
L7815
OUT
IN
C139
22U/25V
HS131
For IC131
GNDS
H G F E D C B A
1 2 3 4 5 6 7 8 9 10

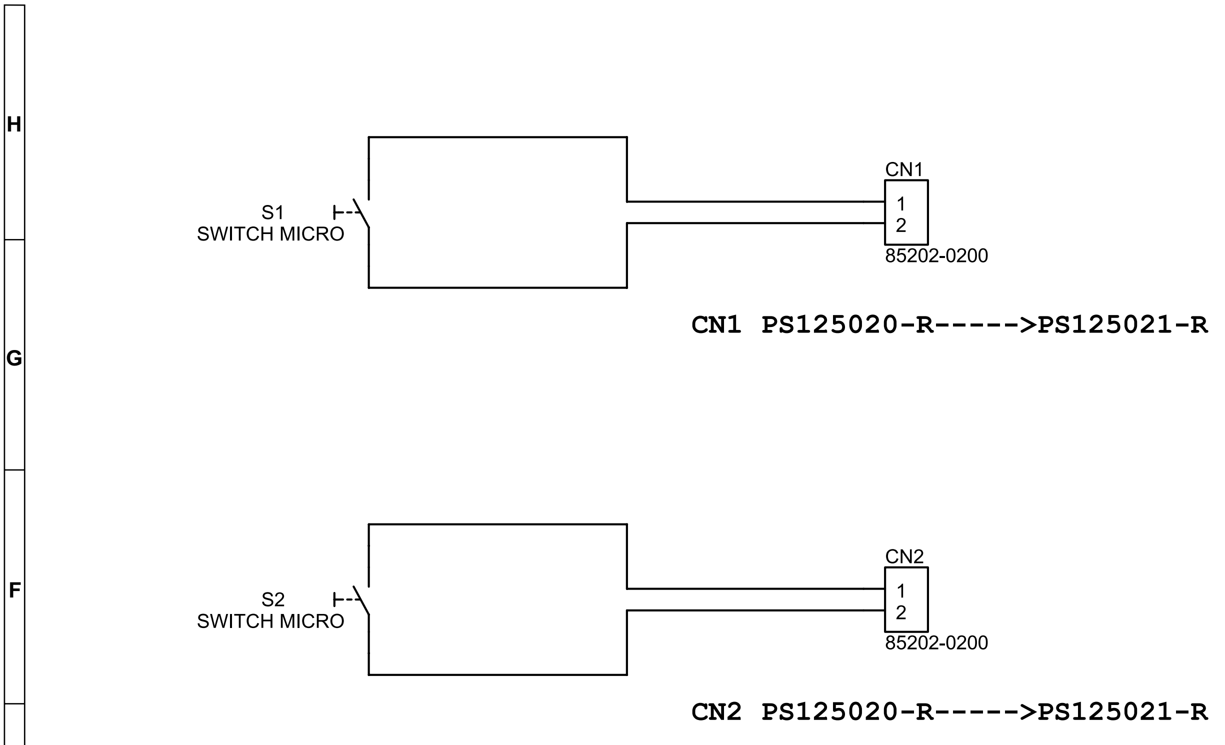

+16V /0.5A
C233 220U/25V
R232 1.8K 3/4W
C234 0.1U/50V
GNDFEE
+13V /1.63A
C237 470U/25V
R234 1.8K 3/4W
C238 0.1U/50V
GND
GNDFEE
L234 12UH
C263 NC
VCC
+5V75 /2.5A
C250 3.3KU/10V
C242 0.1U/50V
GND
GNDFEE
VCC
Q251 NTD4302
G1
R261 10KF/0805
L251 12.5uH
C264 22U/6.3V
D2
+2V5 /3.9A
Q252 NTD4302
C260 1KU/10V
G2
R265 10KF/0805
C261 0.1U/50V
GND
GNDFEE
PinC
Bu4V_SW
R280 1KF/0805
U132 TLP421
SEN_1
PinL
D235 1N4148
+3V3/3.5A
IC232 TPS75501KC
Specific IC
R247 51KF/0805
C249 0.1U/50V
C248 2200U/10V
R248 30.1KF/0805
C253 0.1U/50V
R250 1M F/0805
GND
R249A 0.015 ohm
R249B 0.015 ohm
R249C 0.015 ohm
FG
GNDFEE
HS232
For IC231
R291 470F/0805
Bu4V
2V5_REF
IC280 TL431
C282 4.7UF/25V
C283 0.1U/50V
CONN BD
+5V75
PCON1
VCC
SEN_1
2V5_REF
GND
+2V5
BU4V_SW
GNDFEE
D2
G1
G2
PP_SIG
ENABLE1
ENABLE
CN251
15PINS
15PINS
CN7003A
B+3V3
GND
B+13V
+5V75
N/C
BU4V
PCON0
CN7003B
B+5.7V
B+16V
PCON1
+3V3
+13V
+5V75
+16V
HS231
For D232 D233 D334
CN7003C
B+2.5V
+2V5
CN7003D
10
11
12
13
14
15
16
17
18
19

# ■POWER UNIT / STROMVERSORGUNGSEINHEIT-2/2


STANDBY BOARD
From EMI Board
CN101
R116
NTC 5R 3A
BD101
2KBP08M
C101
22U/450V
R101A
100R/1206
R101B
100R/1206
R115A
649K F/1206
R115B
649K F/1206
R115C
649K F/1206
R117
2K F/1206
C105
4.7U/25V
D104
1N4148
C102
2.2KP/1KV
R103
33K/1206
R104
33K/1206
D101
RGF1M
+V_RLY
C104
1U/50V
C103
47U/35V
D102
ER102 T/B
D103
ER102 T/B
R114
10R 1/2W
R110
10R/0805
D105
1N4148
R105
100R/0805
R107
30K/0805
Q101
2SK330
R106
2.7K/0805
R108
3R3/1W
C110
NC
C109
47U/25V
C108
0.1u/50V
C107
330P/50V
IC101A
DAP08CR2
adj
HV
Drv
CS
vcc
GND
FB
R102
2.2K/0805
ZD101
15B
JH101
HOLE_42N
JH102
HOLE_42N
JH103
JH104
GNDFEE
PFC BOARD
D157
1N4148
R170
75/1206
R171
0/0805
STB15
C156
47U/25V
STB_RLY
RL151 VS-12MBU-NR
CN151
From EMI Board
NTC151
10Ω 8A
NTC152
10Ω 8A
CR151
D25XB60
C151
.47U/420V
R173
NC
R174
NC
C158
NC
D155 1N5406
L151
L152
D154 RHRP3060
R163
2K/2W
C152
6.8U/100V
C153
6.8U/100V
D153
RHRP1560
Q151
IRG4PC50W
D152
BYM26C
Q152
SPW20N60S5
C157
NC
C154
330U/450V
C155
330U/45
R151
7.5 F/1206
D151
1N4148
R152
7.5 F/1206
R153
2K/1206
R154
0.07/7W
R155
0.07/7W
D156
1N4148
R156
7.5F/1206
R158
7.5F/1206
R157
100/1206
Q154
2SB562CTZ
R159
2K/1206
R172
NC
R160A
46.4K/1206
R160B
46.4K/1206
R160C
46.4K/1206
R160D
46.4K/1206
R161A
261K/1206
R161B
261K/1206
R161C
261K/1206
R163A
549K/1206
HI-VOL
R163B
549K/1206
HI-VOL
R163C
549K/1206
HI-VOL
CON151
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10


T1
10
4
1
8
5
6
7
D201
SS36
R201
15R/1206
C201
2.2KP/100V
C202
1KUF/10V
L201
C203
220UF/10V
C204
0.1U/50V
R218
1.8K/2010
Bu4V
GNDFEE
D101
RGF1M
R114
10R 1/2W
Q101
2SK3303
R107
30K/0805
2.7K/0805
R108
3R3/1W
U101
TLP421
R202
100F/0805
R203
1K /0805
C205
0.1u/50V
R204
1.82K F/0805
IC201
TL431
R205
1.1KF/0805
R206
680F/0805
R207
100k/0805
SCR201
TYN0512
R211
10RF/0805
C206
330P/50V
R209
100R/1206
ZD201
4.7B
R210
1KF/0805
R214
100R/1206
Q282
MMBT3906L
Bu4V_SW
R217
100R/1206
Q283
MMBT3904L
R216
1KF/0805
PCON0
R215
1KF/0805
C208
330P/50V
CONTROL E.M.I BOARD RELAY K1 AND SUPPLY DC15V TO IC20
CY131
2.2KP/250V
0
THM1
STB_RLY
JP151
Q102
MMBT5401
+V_RLY
R109
10KF/0805
R112
4.75K/1206
C111
1U/50V
R208
470RF/0805
U102
TLP421
Q200
MMBT3904L
R213
1KF/0805
PP_SIG
R212
10KF/0805
C207
0.01U/50V
+370V
TO LVPS BD
CN152
CN153
C154
330U/450V
C155
330U/450V
Add Mark
4A250V
F151
250V/4A
R163A
549K/1206
HI-VOL
R163B
549K/1206
HI-VOL
R163C
549K/1206
HI-VOL
R164A
133K/1206
HI-VOL
R164B
133K/1206
HI-VOL
R164C
HI-VOL
137K1206
R164D
137K/1206
HI-VOL
STB15
HS101
HS101 FOR Q151,D152,D153
HS102
HS102 FOR CR151,D154
10
11
12
13
14
15
16
17
18
19

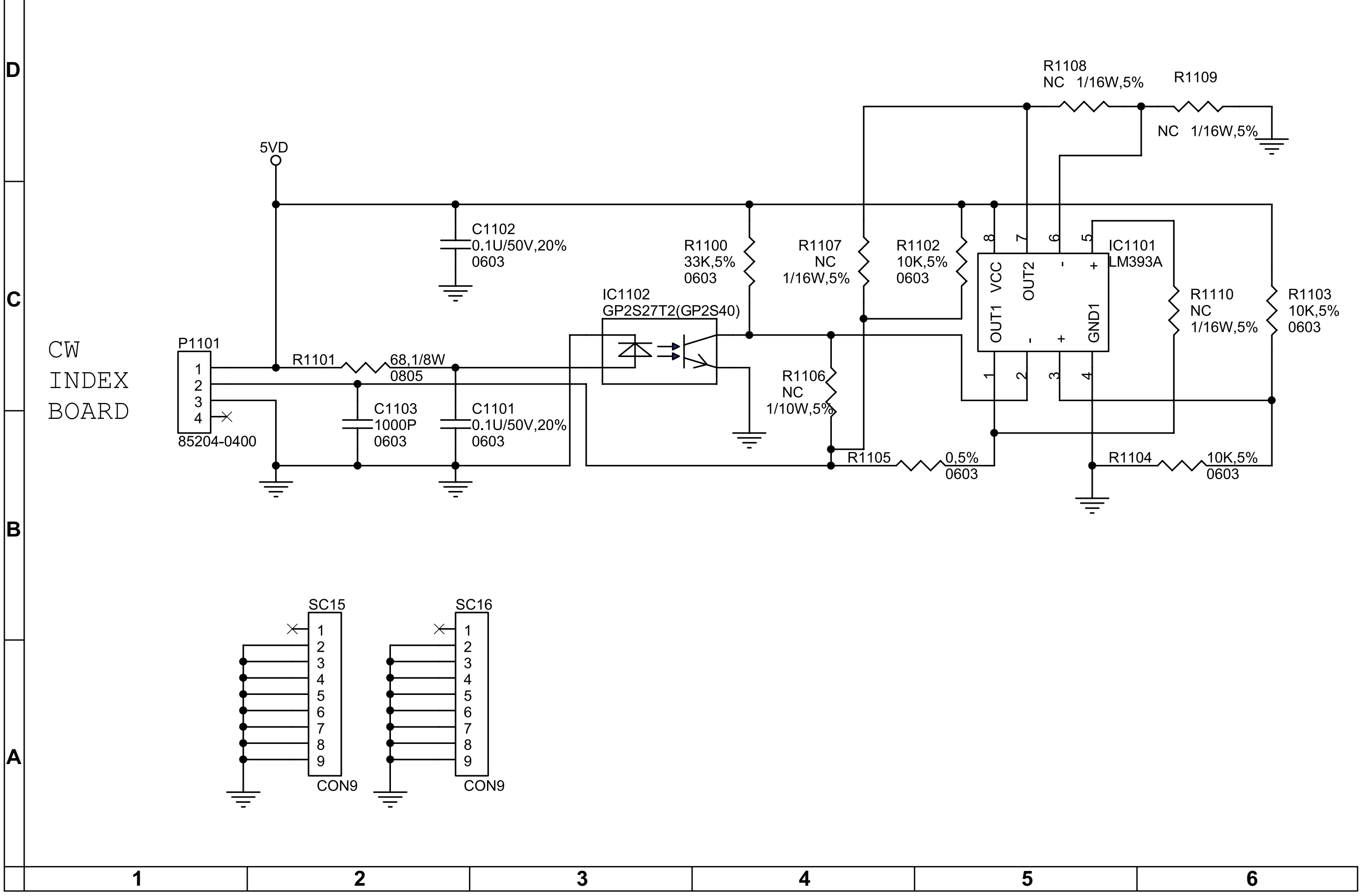
## ■LAMP DETECTION SWITCH UNIT / LAMPENAUSWERTESCHALTUNGS-EINHEIT


H
G
F
E
S1
SWITCH MICRO
CN1
1
2
85202-0200
S2
SWITCH MICRO
CN2
1
2
85202-0200

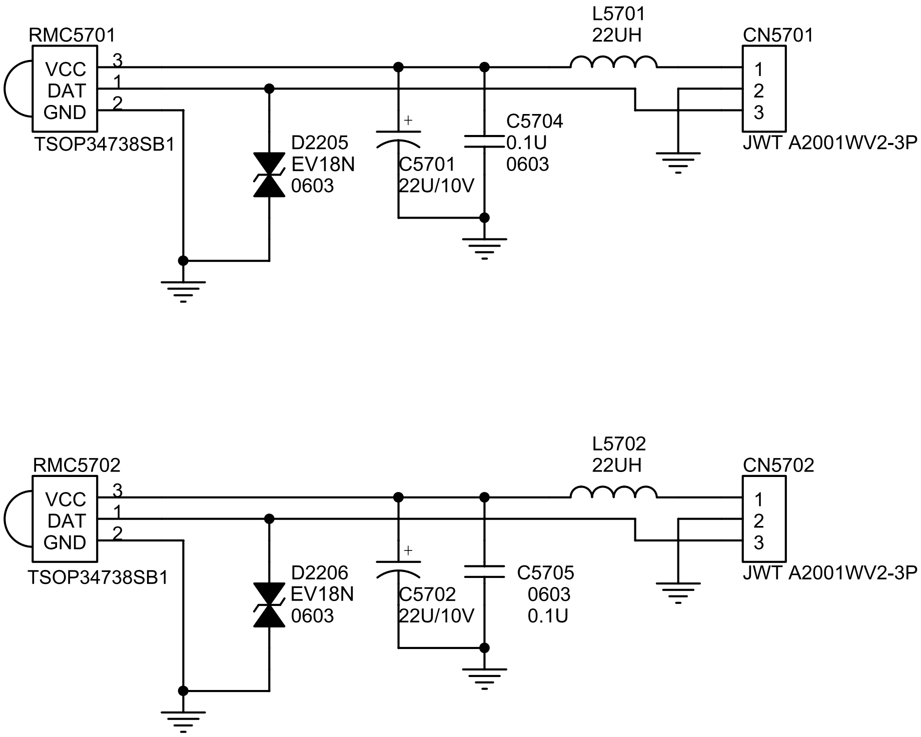
CN1 PS125020-R----->PS125021-R

CN2 PS125020-R----->PS125021-R

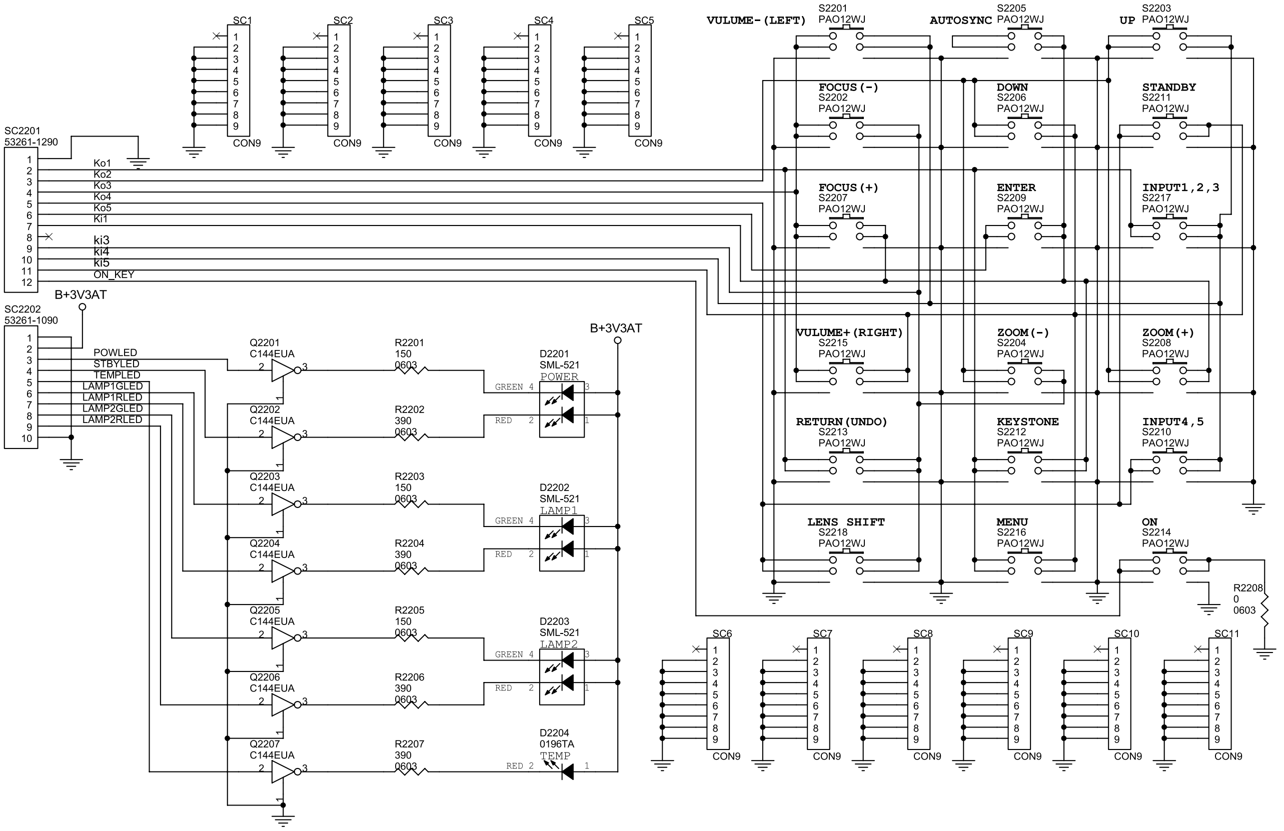
## ■INDEX UNIT / INDEXEINHEIT


D
C
B
A
5VD
C1102
0.1U/50V,20%
0603
R1100
33K,5%
0603
R1107
NC
1/16W,5%
R1102
10K,5%
0603
R1108
NC 1/16W,5%
R1109
NC 1/16W,5%
IC1101
LM393A
VCC
OUT2
OUT1
GND1
8
7
6
5
1
2
3
4
R1110
NC
1/16W,5%
R1103
10K,5%
0603
IC1102
GP2S27T2(GP2S40)
CW
INDEX
BOARD
P1101
1
2
3
4
85204-0400
R1101
68,1/8W
0805
C1103
1000P
0603
C1101
0.1U/50V,20%
0603
R1106
NC
1/10W,5%
R1105
0,5%
0603
R1104
10K,5%
0603
SC15
1
2
3
4
5
6
7
8
9
CON9
SC16
1
2
3
4
5
6
7
8
9
CON9
1
2
3
4
5
6

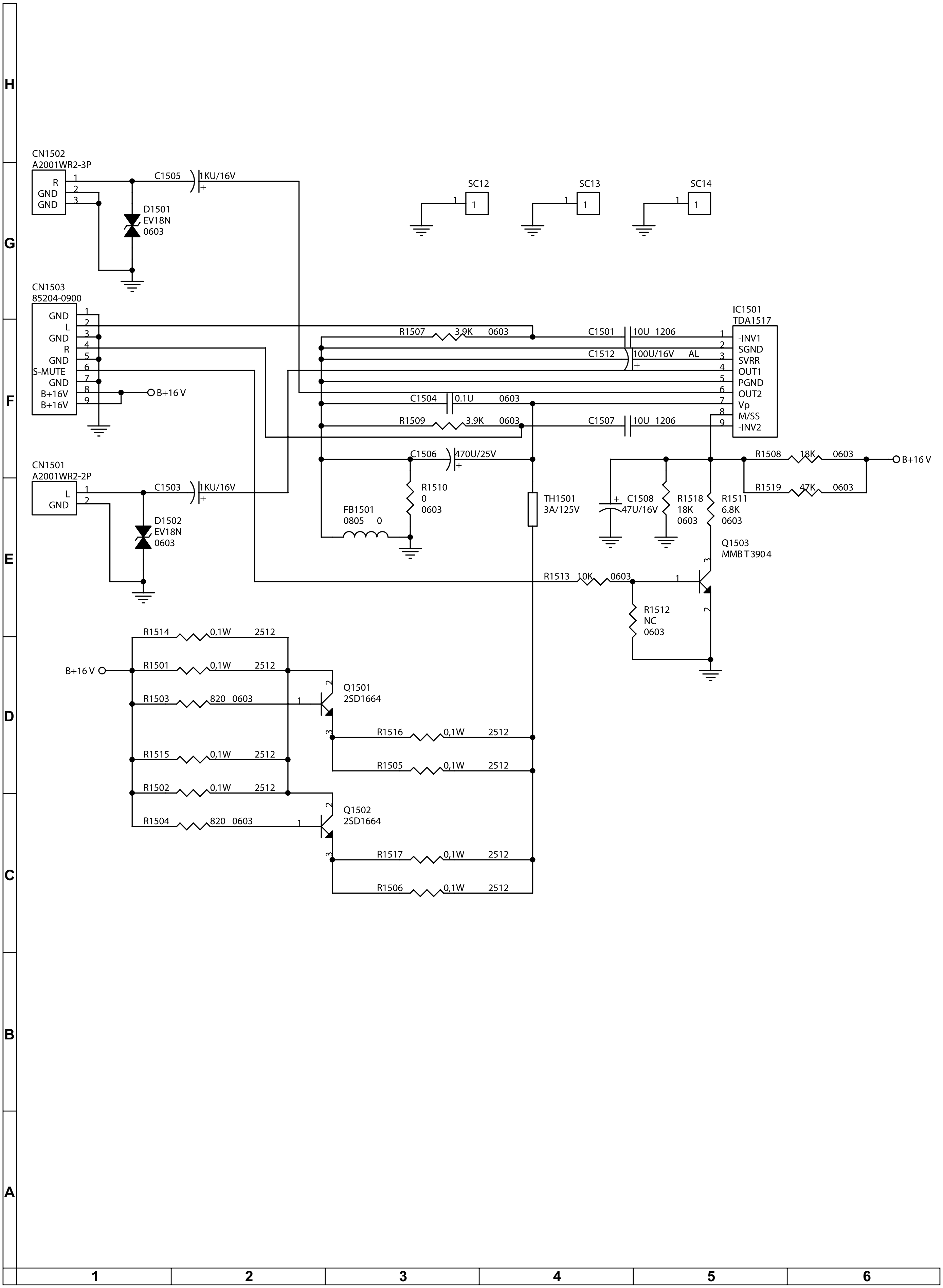
## ■IR FRONT/REAR UNIT / VORDERE/HINTERE IR-EINHEIT


H
G
F
E
RMC5701
VCC
DAT
GND
3
1
2
TSOP34738SB1
D2205
EV18N
0603
C5701
22U/10V
+
C5704
0.1U
0603
L5701
22UH
CN5701
1
2
3
JWT A2001WV2-3P
RMC5702
VCC
DAT
GND
3
1
2
TSOP34738SB1
D2206
EV18N
0603
C5702
22U/10V
+
C5705
0603
0.1U
L5702
22UH
CN5702
1
2
3
JWT A2001WV2-3P

## ■KEY PAD UNIT / TASTATUREINHEIT


D
C
B
A
1
2
3
4
5
6
SC1
SC2
SC3
SC4
SC5
CON9
SC2201
53261-1290
Ko1
Ko2
Ko3
Ko4
Ko5
Ki1
ki3
ki4
ki5
ON_KEY
B+3V3AT
SC2202
53261-1090
POWLED
STBYLED
TEMPLED
LAMP1GLED
LAMP1RLED
LAMP2GLED
LAMP2RLED
Q2201
C144EUA
Q2202
C144EUA
Q2203
C144EUA
Q2204
C144EUA
Q2205
C144EUA
Q2206
C144EUA
Q2207
C144EUA
R2201
150
0603
R2202
390
0603
R2203
150
0603
R2204
390
0603
R2205
150
0603
R2206
390
0603
R2207
390
0603
B+3V3AT
D2201
SML-521
POWER
GREEN 4
RED 2
D2202
SML-521
LAMP1
GREEN 4
RED 2
D2203
SML-521
LAMP2
GREEN 4
RED 2
D2204
0196TA
TEMP
RED 2
VULUME-(LEFT)
S2201
PAO12WJ
AUTOSYNC
S2205
PAO12WJ
UP
S2203
PAO12WJ
FOCUS(-)
S2202
PAO12WJ
DOWN
S2206
PAO12WJ
STANDBY
S2211
PAO12WJ
FOCUS(+)
S2207
PAO12WJ
ENTER
S2209
PAO12WJ
INPUT1,2,3
S2217
PAO12WJ
VULUME+(RIGHT)
S2215
PAO12WJ
ZOOM(-)
S2204
PAO12WJ
ZOOM(+)
S2208
PAO12WJ
RETURN(UNDO)
S2213
PAO12WJ
KEYSTONE
S2212
PAO12WJ
INPUT4,5
S2210
PAO12WJ
LENS SHIFT
S2218
PAO12WJ
MENU
S2216
PAO12WJ
ON
S2214
PAO12WJ
R2208
0
0603
SC6
SC7
SC8
SC9
SC10
SC11
CON9

# ■AUDIO UNIT / AUDIOEINHEIT


H
G
F
E
D
C
B
A
1
2
3
4
5
6
CN1502
A2001WR2-3P
R
GND
GND
1
2
3
C1505
1KU/16V
+
D1501
EV18N
0603
SC12
SC13
SC14
1
CN1503
85204-0900
GND
L
GND
R
GND
S-MUTE
GND
B+16V
B+16V
1
2
3
4
5
6
7
8
9
B+16 V
IC1501
TDA1517
R1507
3.9K
0603
C1501
10U 1206
C1512
100U/16V AL
+
C1504
0.1U
0603
R1509
3.9K
0603
C1507
10U 1206
-INV1
SGND
SVRR
OUT1
PGND
OUT2
Vp
M/SS
-INV2
CN1501
A2001WR2-2P
L
GND
C1503
1KU/16V
+
D1502
EV18N
0603
C1506
470U/25V
+
R1510
0
0603
FB1501
0805 0
TH1501
3A/125V
C1508
47U/16V
R1518
18K
0603
R1511
6.8K
0603
R1508
18K
0603
R1519
47K
0603
B+16 V
Q1503
MMBT3904
R1513
10K
0603
R1512
NC
0603
R1514
0,1W
2512
B+16 V
R1501
0,1W
2512
R1503
820 0603
Q1501
2SD1664
R1516
0,1W
2512
R1505
0,1W
2512
R1515
0,1W
2512
R1502
0,1W
2512
R1504
820 0603
Q1502
2SD1664
R1517
0,1W
2512
R1506
0,1W
2512

COPYRIGHT © 2005 BY SHARP CORPORATION

ALL RIGHTS RESERVED.

No part of this publication may be reproduced,
stored in a retrieval system, or transmitted in
any form or by any means, electronic, mechanical,
photocopying, recording, or otherwise, without
prior written permission of the publisher.

TQ -S
Apr. 2005 Printed in Japan

| Design and Production Information | |
|---|---|
| Design | : OEM |
| Production | : OEM |

MY. DS

SHARP CORPORATION
AV Systems Group
Quality & Reliability Control Center
Yaita, Tochigi 329-2193, Japan